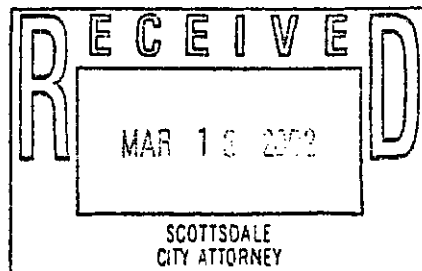


Analysis of Fire Services
CITY OF SCOTTSDALE,
ARIZONA



MAXIMUS
Waltham, Massachusetts

March 15, 2002

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TABLE OF CONTENTS

INTRODUCTION AND EXECUTIVE SUMMARY	1
ANALYSIS OF CURRENT FIRE SERVICES PROVIDED BY RURAL / METRO	7
APPENDIX: BEST PRACTICES EVALUATION OF FIRE AND EMERGENCY MEDICAL SERVICES PROVIDED IN SCOTTSDALE BY RURAL / METRO	60
ATTACHMENTS	
A. PROFILE OF THE FIRE AND EMS SYSTEMS IN THE CITY OF SCOTTSDALE	A-1
B. RESULTS OF THE CITIZEN SURVEY	B-1

INTRODUCTION AND EXECUTIVE SUMMARY

INTRODUCTION

The report, which follows, summarizes the results of five months of data collection and analysis of fire service alternatives for the City of Scottsdale, Arizona, including current services being provided and potential future alternatives. The project team which conducted this study thoroughly reviewed the services currently provided by Rural / Metro, and analyzed potential improvements associated with the current service approaches as well as analyzed the feasibility of the City creating a municipal department. Since the beginning of the study in August, 2001, the study team has conducted its evaluation of fire services in Scottsdale using the following approaches:

- **Maximizing the input of Rural / Metro staff:** During this project, members of the study team interviewed all command staff in Rural / Metro as well as staff with unique responsibilities for program performance. Moreover, many line staff were interviewed throughout the process in group station interviews.
- **Developing input and guidance from the City, including Council members and citizens:** The project team met with City Council members early in the project. The intent of these meetings was to gain insight into historical and service issues related to City fire service needs and capabilities. In addition, input was received from citizens through a survey of about 500 recent recipients of fire service. The results of this survey are contained in Attachment B, at the conclusion of this report. The project team also solicited written and e-mailed input from citizens into the process.
- **Throughout the project, the study team has met with a City-established project steering subcommittee as well as Rural / Metro management staff to review progress and key issues which arose during the process:** There was an internal group of City staff who made up the project steering committee. While the project team met approximately monthly with the committee, the meetings were interim report-driven so that actual products were reviewed.
- **The study team has been heavily involved in detailed data collection and analysis of workloads and service levels which characterize operations and services provided by Rural / Metro**

to the City of Scottsdale: The focus of data collection was to understand fire service workloads and service levels. This data collection was also a base to aid in the formation of possible alternatives available to the City. The principal product of the project team's data collection, a "profile" of services provided by Rural / Metro to the City of Scottsdale is contained as Attachment A, at the conclusion of this report.

The purpose of this study was to evaluate the services currently being provided by Rural / Metro to the City, as well as to identify and analyze fire service alternatives for the future. This study helped to frame these choices through:

- **Analysis of the use of current resources:** A key objective of this project was to assess the effectiveness of the current contractual arrangement the City has with the Rural / Metro. This objective was designed to address the question of whether the current arrangement provides an appropriate structure on which to base future City fire services.
- **Providing the tools to assess current and future needs:** The project team has used a number of methodologies and approaches to evaluate fire service alternatives. Because the needs of the community may change in the future, the project team has attempted to show the methodology needed to recreate this analysis. Part of this evaluation included the use of a computerized fire station location model which can continued to be used to evaluate fire service alternatives.
- **Analysis of the strengths and potential improvements associated with each alternative, at different stages of the process:** Because this study focused on a number of fire service alternatives, it was necessary to illustrate the advantages and disadvantages of each alternative. These alternatives included internal changes to the way in which Rural / Metro provides services as well as the cost effectiveness of creating a municipal department.

This report summarizes the results of these analytical efforts and provides implementation steps which the City should consider when addressing future fire service needs.

EXECUTIVE SUMMARY

This report focuses on the current operations of Rural / Metro the contract provider of fire services in the City of Scottsdale. This report examines several key issues in the delivery of services, specifically:

- Have fire resources been deployed within the City to provide levels of service that correspond to national standards? How are fire services comparably deployed in different areas of the City?
- If there are issues with the current deployment of fire resources (stations, units and personnel) what steps need to be taken to address those issues?
- How will planned future stations impact the delivery of services in the City of Scottsdale?
- Are training, vehicle maintenance, fire prevention, public education and other support services provided at a high level as well?
- Does Rural / Metro have the management systems in place to oversee operations?

MAXIMUS found that, in general, the City is receiving a high level of service under the contract with Rural / Metro. The paragraphs, that follow, provide a summary of our key findings:

- **The City of Scottsdale and Rural / Metro provide high levels of service throughout the City.** The project team conducted an extensive analysis of the delivery of services throughout the City. This analysis has shown that fire services can reach 52% of the entire City in four minutes or less. This is in keep with the national standard recently re-stated in NFPA 1710. This standard applies to both the delivery of fire services as well as the delivery of basic life support (BLS) emergency medical services (EMS).
- **Rural / Metro is meeting initial response time requirements for each area of the City under current conditions.** The project team from MAXIMUS evaluated the ability of the fire service to achieve the performance standards that are described in the current contract. The table, that follows, shows that average response times by Rural / Metro are within established response time standards (for the first unit) in all areas of the City:

Response Area	Time	Time Allowed via Contract
Sta. 810 (4 min.)	2:57	4:00
Sta. 810 (5 min.)	4:01	5:00
Sta. 811 (4 min.)	3:29	4:00
Sta. 811 (5 min.)	3:30	5:00
Sta. 812 (5 min.)	4:53	5:00
Sta. 812 (7 min.)	5:33	7:00
Sta. 813	3:31	5:00
Sta. 814	2:50	5:00
Sta. 815	3:15	7:00
Sta. 816	4:50	7:00
Sta. 818	6:19	7:00
Sta. 819	4:15	7:00
Sta. 820	6:44	7:00
Overall	4:09	N/A

This suggests that the calls for service are within those areas for which the City and Rural / Metro have developed fire response capability (i.e., the response areas are designed to overlap those places where most of the calls for service occur).

- **The extensive distribution of automated fire sprinkler systems in buildings in the City allows the City to operate with a 12-minute initial full response standard rather than a common eight (8) minute standard.** MAXIMUS believes that the widespread extent of sprinkler systems throughout the City provides it with additional time to initiate a full structure fire response. MAXIMUS defines (in conjunction with NFPA 1710) a full structure response as one in which 12 people can be on-scene within a specified period of time.
- **A standard of 12 minutes allows Rural / Metro to delivery 12 firefighters on scene almost three quarters of the City.** More than 73% of the City can be reached by 12 firefighters in less than 12 minutes. This additional time is gained through the heavy use of fire sprinkler systems throughout the City. The project team's analysis of the deployment of resources in the City also shows that only 49% of the City can be reached by 12 firefighters in less than eight minutes (this is the national standard initial response time).
- **The addition of the two new stations planned by the City will have the greatest impact in the immediate response area.** The project team also evaluated the impact of the introduction of two new fire stations (817 and 827) on the larger system and found that this would be minimal in the near term. The project team found that either the territory of these two stations links with existing areas or that the road network does not yet accommodate the new station.

- The City also benefits from the provision of firefighter trained emergency medical personnel provided under the separate EMS contract. The project team was also able to include the firefighter trained EMS personnel in our response analyses. The City of Scottsdale benefits from the inclusion of these personnel – even though they are not directly paid for under the fire services contract. In fact, these personnel are compensated under the emergency medical services contract that the City has with Rural / Metro.
- The City of Scottsdale should support a move to set three as the minimum staffing for all fire apparatus operated by Rural / Metro. The project team recommends that the City and Rural / Metro work to eliminate the use of two-person fire companies in the City. Currently there are four such units in the City (Engine 808, Engine 809, Ladder 811 and Engine 811). The project team recommends a move to dedicated three-person staffing on all units. This recommendation could be phased in as part of the budget process. The total annual cost for making this transition is approximately \$500,000.
- Current field command approaches, including the incident command system, appear to be at the national standard. The project team examined the current policies and procedures relating to the management and command of the resources in the field. These command structures are most important when the incident becomes large and complex. These systems are designed to maximize the safety, accountability and management of personnel and resources.
- Several significant issues exist with respect to the provision of training by Rural / Metro. These include the following:
 - Training can be enhanced through closer coordination between the Labor / Management committee and the OSHA coordinator position.
 - The project team has also recommend increases in the training staff by a Captain position to coordinate training for on-duty staff.
 - Rural / Metro needs to develop clear goals and objectives for training and to develop approaches to evaluating the efficacy of the training.
 - Rural / Metro needs to adopt a more structured approach to the delivery of on-duty training. This should include central development of training curricula and decentralized provision of that training. The project team has provided an outline for this training program – however, adoption of an already developed local training program (e.g. Phoenix Fire Department or other

local agency) as long as it follows the basic approach outlined in this report.

- Management of the fire service could be enhanced by the increased use of data and management systems. The project team recommends that Rural / Metro take steps to improve the way in which information, technology and other systems are used to provide managers (at all levels) with information to enhance their ability to make decisions and so on.
- Rural / Metro has taken a number of steps to ensure that vehicle maintenance operations result in well maintained apparatus and low downtime for emergency vehicles. The project team examined the services of the vehicle maintenance operations of Rural / Metro. Our evaluation shows a unit which is focused on providing preventive maintenance using innovative techniques (mobile units provide maintenance in the field) and to minimizing the shop time for each emergency unit. This is made all the more important given the long travel times in the City.

The table, below, provides a summary of the major recommendations in the report, with recommended timing and the associated cost estimates.

RECOMMENDATION	TIMING	COST
Make no additional changes to the station network beyond current plans to add two stations.	N/A	\$0
Bring all fire apparatus staffing to a minimum of three personnel at all times. This includes the following units: Engine 808, Engine 809, Engine 811 and Ladder 811.	Could be phased.	\$500,000
Take steps to enhance communication between the City and Rural / Metro.	Short term.	\$0
Enhance the delivery of fire service training. Add an additional staff position to coordinate in-station training, develop a formal training program (for consistent training in all stations), etc.	Short term.	\$0
Increase focus on data as a management tool.	Short term.	\$0
Re-consider the response time standards established for all areas of the City.	Short term.	\$0

The report, that follows, provides more detailed information regarding each of the elements that have been summarized in this section.

ANALYSIS OF CURRENT FIRE SERVICES PROVIDED BY RURAL / METRO

This report provides the project team's analysis of the current operations of the Rural / Metro fire services in the City of Scottsdale. This report provides an analysis of the current unit and station deployment network, an analysis of future stations (including growth assumptions for the City) and an analysis of the current approach to management and training in the City. The final section of the report provides recommendations for improvements to the current operation that might be considered for making changes to the contract between the City of Scottsdale and Rural / Metro for future fire services in the City.

Finally, as an Appendix to this report, the project team has provided our best practices evaluation of the fire services provided by Rural / Metro. This analysis provides a comparison of Rural / Metro's fire services in the City on a wide range of services and in every aspect of operations. This analysis was also used by members of the project team to identify those areas which required the more extensive analysis provided in the body of this report. Those areas where the project team found that Rural / Metro was meeting or exceeding the standards were not followed up additionally in this report.

The project team also developed a descriptive 'profile' of fire and emergency medical services provided by Rural / Metro to the City of Scottsdale. This summary provides the factual base underlying much of the analysis in this report. Rather than repeating this information here, we have provided it as an attachment at the conclusion of this report.

1. **THE CURRENT STATION RESPONSE NETWORK PROVIDES FOR HIGH SERVICE LEVELS IN THE MOST URBANIZED AREAS OF THE CITY.**

This section provides a preliminary analysis of the emergency response network in the City of Scottsdale, as provided by Rural / Metro under their contract with the City. Specifically, this section evaluates the current locations of fire stations in the City (as well as the impact of the next two stations scheduled to be added in the City) from the perspective of Rural / Metro's ability to provide effective responses to fire and medical emergencies. This analysis focuses on the ability of Rural / Metro to accomplish:

- Placement of a first responding unit to fire calls within four (4) minutes of receipt of the call for service.
- Placement of an initial first attack on-scene at a structure fire within eight (8) minutes of receipt of the call for service (or in 12-minutes due to the wide-spread use of sprinklers in all structural types).
- The ability of Rural / Metro to achieve the response time standards set forth in the contract between itself and the City of Scottsdale.

The rationale for selecting the first two standards is described in the first section of this report. The analysis in this report was accomplished using a computer model called FLAME ("Fire Station Location And Mapping Environment"). The model generates maps of the City (and surrounding areas) that show the results of specific analyses of coverage. The FLAME model utilizes U.S.G.S. digital map files to describe the road network in the City (including descriptions of the type of roads, projected speeds, etc.). To model the emergency fire response network in the City of Scottsdale, MAXIMUS took the following steps:

- Current fire stations are located within the model at their address.
- Apparatus resources available at the stations in terms of engines, trucks and rescues (ambulances) are programmed into the model.

- Staffing on each unit is also programmed into the model. The project team made the decision to include the Deputy Fire Marshals as staffing available on the units throughout the day.
- Units that are dedicated to specific tasks (airport firefighting) were placed in the model but were not made available for meeting the staffing requirements for fires off the airport (i.e., in effect, these staff do not exist from the model's perspective).
- The model was allowed to make use of any available units to arrive at the staffing complement required (as described below) including engines, trucks and rescues.
- Other factors such as hesitation at intersections, maximum travel speeds by road type, etc. were also programmed into the model before the model was run.
- Certain roads were added to make the model more representative of the current road network in the City – for example, the project team added the Pima Freeway and several bridges across the Hayden Canal. Additionally, the few roads in the McDowell Preserve were removed from the model to more accurately reflect the nature of Rural / Metro's responsibilities to the City of Scottsdale.
- Standards for response are also provided to the model. In this analysis, MAXIMUS used a four (4) minute initial response standard (with an eight (8) minute maximum response time) and a standard for an initial response on the scene within either eight (8) or 12-minutes.

The following sub-section describes the response standards used by the project team and the rationale for using each.

(1) **Response Time Standards Are Taken from Industry Research and from NFPA 1710.**

MAXIMUS has chosen to use two response standards in evaluating the emergency fire responses network (i.e., station locations) in the City of Scottsdale.

These include the following:

- The ability of Rural / Metro to place an initial response on the scene of a reported structure fire in four (4) minutes or less from the time the call is dispatched to Rural / Metro (this includes an allowance for a one (1) minute reaction time by the crew on the engine). There is a corresponding four (4) minute standard for the initial delivery of basic life support (BLS) emergency medical response (EMS).

- The ability of Rural / Metro to place an initial first response to a structure fire in eight (8) minutes or less. This also includes an allowance of one (1) minute for reaction time by the engine and truck company crews. The rationale for this standard is based on research into fire behavior and the impacts of alternative response time performance:
 - At eight minutes, fires typically expand beyond their initial room and contents of origin. This means that the fire becomes much more difficult to contain and it becomes more difficult to contain damage and to protect people in the structure. This is also referred to as the flashover point in the fire – the point at which the heat of the fire and the gases begins to burn all combustible material in the room.
 - At eight minutes into a fire it is also increasingly likely that there will be deaths or major injuries associated with the fire. This has been demonstrated statistically (both under dedicated research projects as well as by examining the national fire incident reporting system or NFIRS data).
 - Eight minutes also corresponds to the American Heart Association's standard for the delivery of advanced life support (ALS) or paramedic medical care. Similar to fire behavior, the survivability for heart attack victims dramatically declines after they have been down for eight minutes. Other studies (e.g., King County, Washington) have corroborated a standard of eight minutes for advanced life support and four minutes for basic life support.

MAXIMUS also ran the models for this analysis using a second set of standards – the ability to place an “initial structure response” on-scene in 12-minutes. The project team utilized these standards because 8 minutes represents the national standard target and 12 minutes represents an appropriate target for a City that is so widely covered by sprinklers in commercial, industrial and residential structures.

It should be noted that the initial structure response standard also has an on-scene staffing level target associated with it. This includes a chief officer (incident commander) and 13 additional line personnel, as described, below:

- One (1) incident commander.

- One (1) firefighter in charge of maintaining the water supply.
- Six (6) firefighters dedicated to handling two attack lines (two per line plus one in support of each).
- Two (2) firefighters on a ventilation team.
- Two (2) firefighters on a search and rescue team.
- Two (2) firefighters on a rapid intervention team or RIT (i.e., a firefighter rescue team). These last two positions can perform the support tasks for the hose lines (since these roles could be halted to perform a rescue) as long as additional personnel are en route to the scene of the fire to set up a formal RIT.

The result of this is that a minimum of 12 firefighters and officers are required on scene to begin attacking the fire effectively within the time standard. This standard is also widely supported in research on the number of personnel required at the scene of a structure fire and has been included in the text of NFPA 1710.

The following sub-section examines the ability of Rural / Metro to meet the 4-minute standard for placing an initial unit on-scene at a fire or medical emergency.

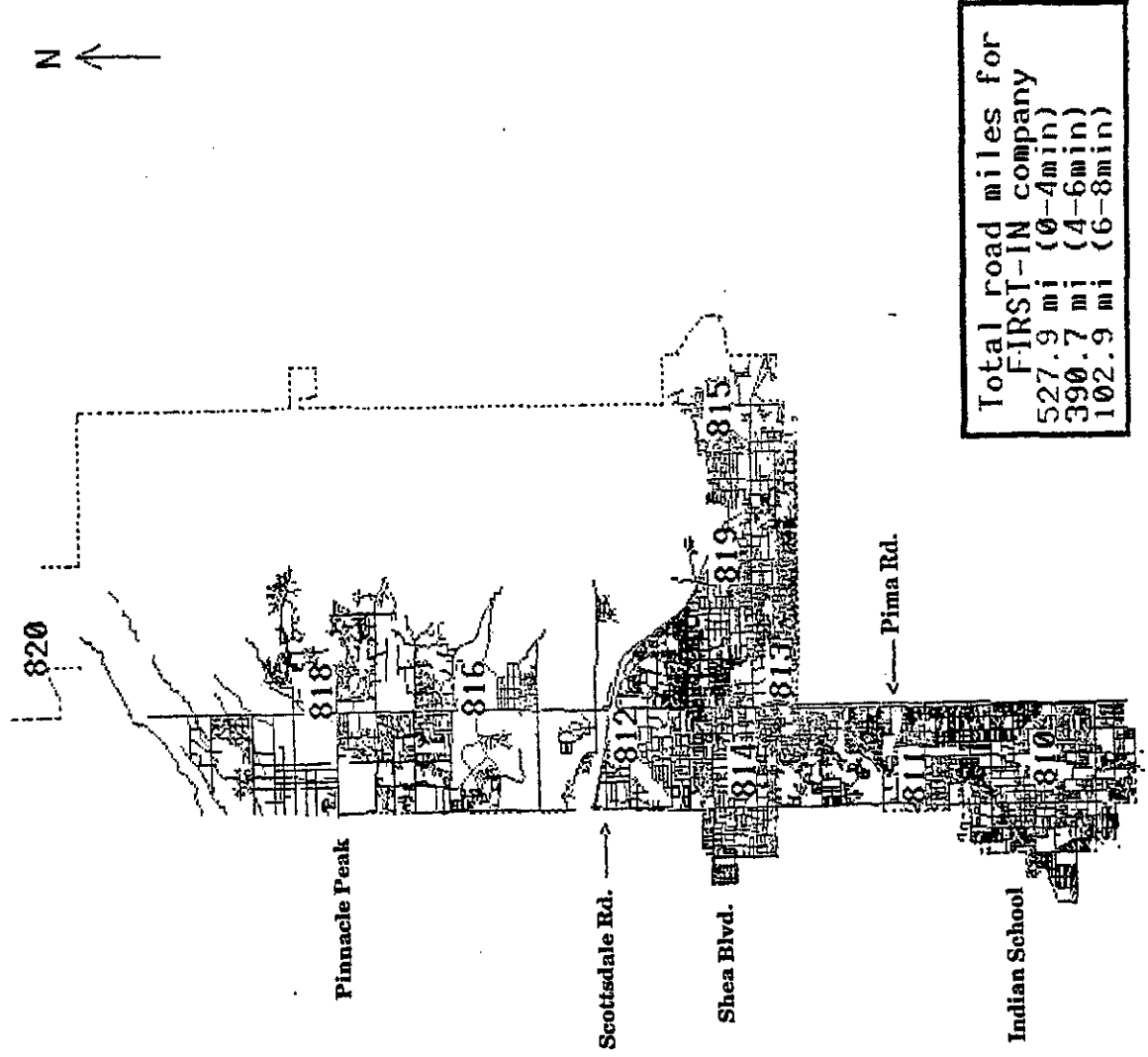
(2) **The Current Response Network Can Deliver an Initial Unit in Four Minutes or Less to a Majority of the City.**

The model was first used to evaluate the ability of Rural / Metro to place an initial unit on-scene in four minutes or less (though it should be noted that the contract is more lenient than this in some part of the City). The model was asked to evaluate whether or not a unit could reach each point in the City (as defined by the road network) with four minutes or less.

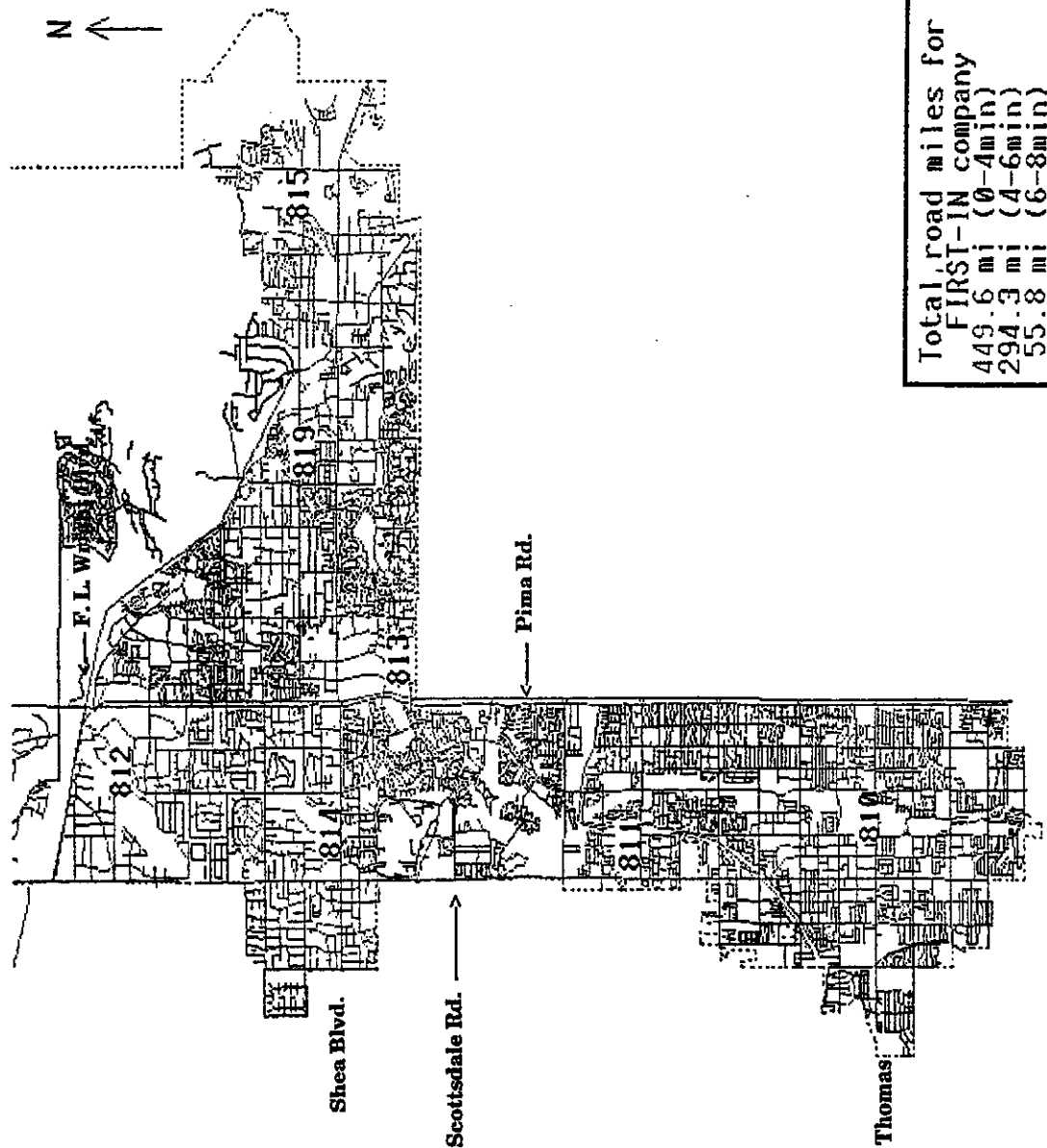
To provide a thorough evaluation of this issues, the project team produced three analyses:

- A first map showing the entire City of Scottsdale.

Current Distribution of First Company Response Times Rural / Metro - Scottsdale, AZ



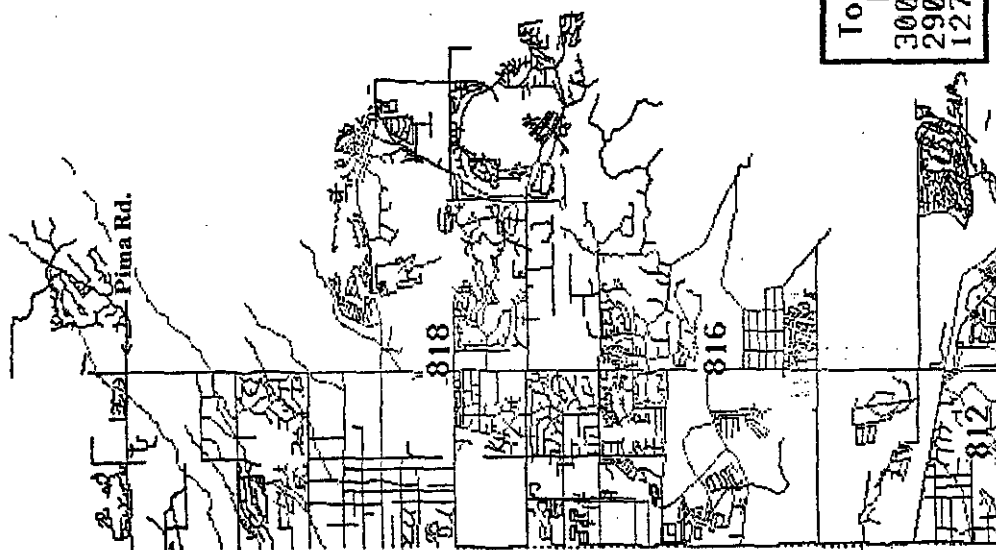
Current Distribution of First Company Response Times (South Detail) Rural / Metro - Scottsdale, AZ



Current Distribution of First Company Response Times (North Detail) Rural / Metro - Scottsdale, AZ

N ↑

820



Pinnacle Peak Rd.

Scottsdale Rd. →

P.L. Wright Blvd.

Total road miles for		
FIRST-IN company		
300.9 mi	(0-4min)	
290.0 mi	(4-6min)	
127.6 mi	(6-8min)	

- A second map that shows the City of Scottsdale from Frank Lloyd Wright Blvd. south.
- A final map that shows the City of Scottsdale from F. L. Wright Blvd. north to the City limit.

The maps that show the results of these analyses can be found on the following pages. The points, that follow, provide a summary of the results of each of these analyses:

- The map of the entire City shows that Rural / Metro can provide fire services in four minutes or less to 528 of the 1,022 road miles in the City - this is equivalent to 52% of the entire City. These response areas are, as would seem intuitive, clustered near each of the current fire stations. Areas between the stations can be reached in six or eight minutes. There are no areas in the City that can't be reached in eight minutes or less by an initial responding unit.
- The second map shows a more detailed view of the area of the City that is south of F. L. Wright Blvd. This is the most densely populated area of the City and the area where the highest demand for services from Rural / Metro originates. This map shows that more almost 450 road miles of almost 800 road miles depicted south of F. L. Wright can be reached in four minutes or less from the current stations. This is equivalent to 56% of this area. In addition, 37% can be reached in four to six minutes and 7% can be reached in six to eight minutes.
- The third map in this analysis shows a more detailed view of the area of the City that is north of F. L. Wright Blvd. This is an area of the City that is much less densely populated, contains extensive preserve areas and (as will be shown later) is unlikely to be developed significantly due to preservation goals. Rural / Metro can currently reach 26% of the area shown on this map in four minutes or less. There are some areas east of Pima Road which cannot be reached in eight minutes or less as a result of current station deployment.

These analyses have shown that Rural / Metro and the City are providing a lean level of service - particularly in the north but also in areas in the south end of the City (for example, between Station 810 and Station 811; or in the area southeast of Station 812 - this latter gap will be filled by the opening of Station 817 in the near future).

While MAXIMUS has shown that there may be issues with the ability of Rural / Metro to place units on scene in four-minutes or less in some parts of the City, the table, on the following page, shows that the company is meeting the contractual requirements for initial unit response:

Response Area	Time	Time Allowed via Contract
Sta. 810 (4 min.)	2:57	4:00
Sta. 810 (5 min.)	4:01	5:00
Sta. 811 (4 min.)	3:29	4:00
Sta. 811 (5 min.)	3:30	5:00
Sta. 812 (5 min.)	4:53	5:00
Sta. 812 (7 min.)	5:33	7:00
Sta. 813	3:31	5:00
Sta. 814	2:50	5:00
Sta. 815	3:15	7:00
Sta. 816	4:50	7:00
Sta. 818	6:19	7:00
Sta. 819	4:15	7:00
Sta. 820	6:44	7:00
Overall	4:09	N/A

This table shows that Rural / Metro is meeting its contractual requirements in terms of initial unit response time. In every case, the fire service is being provided in a time less than that required by the contract (and in fact, the overall response time for the entire City of 4:09 is quite good). This also shows that the majority of incidents take place in those areas of dense population and development – those areas where the fire service is best-equipped to respond rapidly from its current station network.

Comparison of these two analyses shows the weakness of FLAME as a tool – that the software does not take into account the concentration of calls for service when making its analysis – it simply shows where a unit can get to in a pre-determined period of time. Review of the table, above, shows that the stations are generally well located to place a unit on-scene in a timely fashion (compared to the contract if not to the national standard).

It should be noted that of the 39 structure fires in fiscal year 2001 that caused more than \$1,000 damage, 16 were put out by the sprinkler system in the structure. The remaining 23 required intervention by fire personnel. Only half-dozen of these required a second alarm for more units. It should also be noted that five of these fire were the result of the "Preserve Arsonist" who was setting fires in new, unfinished homes (i.e., those whose sprinkler systems had not been activated).

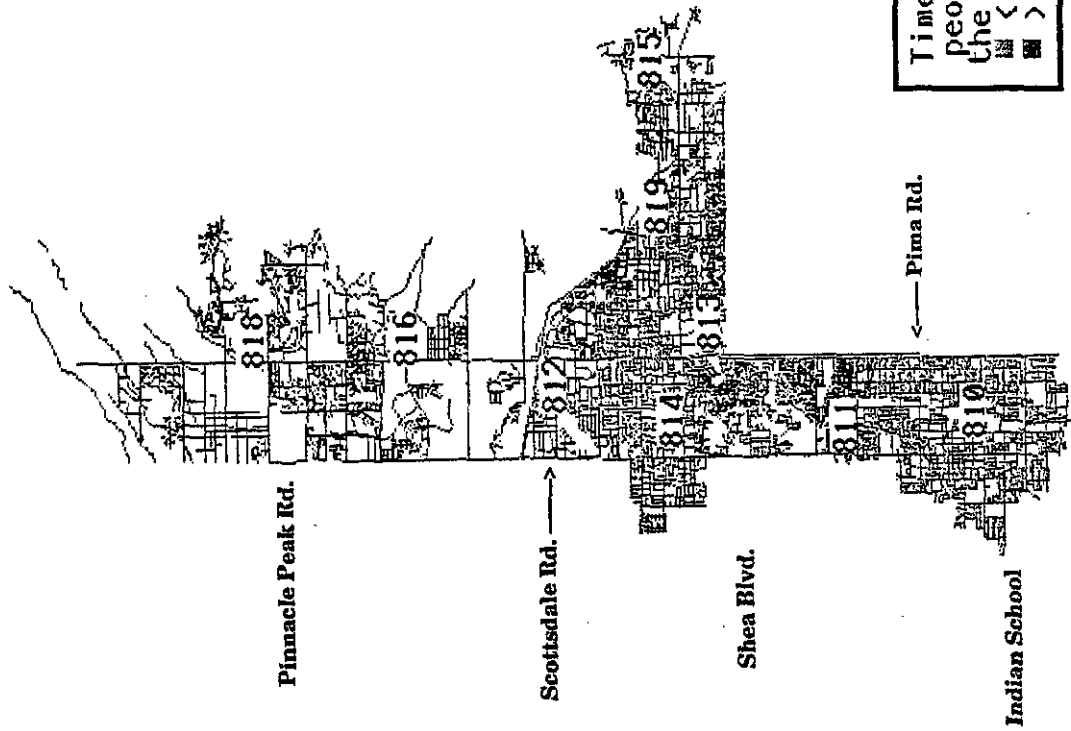
(3) **The Current Response Network Is Incapable of Providing Uniform Delivery of 12 Firefighters On-Scene in Eight Minutes or Less.**

The next series of analyses conducted by the project team examined the ability of the Rural / Metro fire service to place an initial attack (as defined in sub-section 1 of this section) on-scene in eight minutes or less (for the reasons described in that same sub-section). As with the prior analyses, the project team has provided three separate analyses of these issues, as summarized, below:

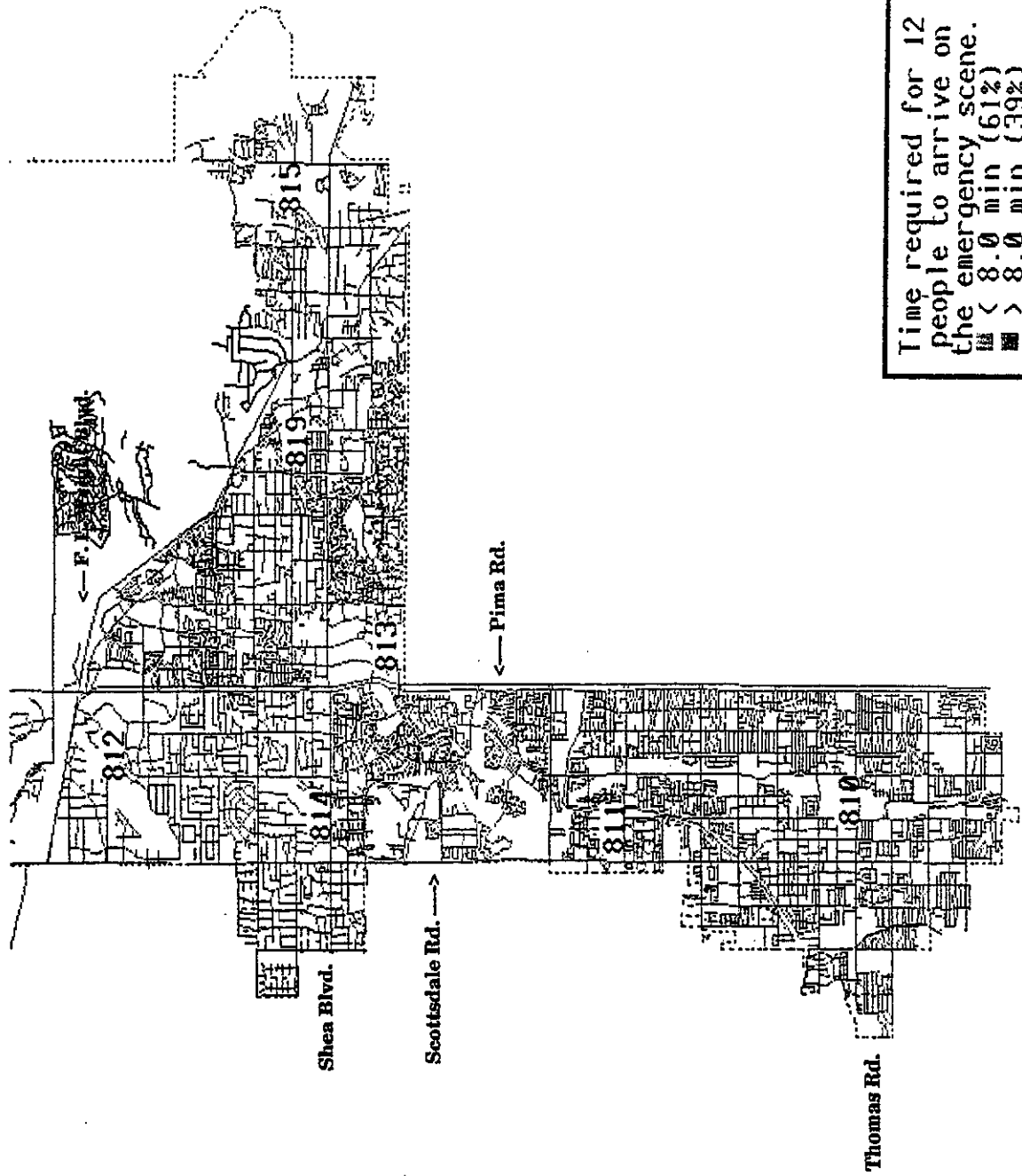
- The first analyses shows the City of Scottsdale as a whole. This first map shows the ability of the Rural / Metro fire service to place 12 firefighters on-scene in eight minutes or less extends to 49% of the City (all of the areas included in this are south of F. L. Wright Blvd.). The areas that meet this standard are depicted in green while the areas that fail to meet this standard are shown in red.
- The second map shows the area of the City that is south of F. L. Wright Blvd. This is the most densely populated and developed area of the City. This analysis shows that the Rural / Metro fire service is able to meet this standard in 61% of the area shown in this map. Again, the areas in which this standard can be met are depicted in green and the other areas are shown in red.
- Conversely, in the map that shows the City of Scottsdale from F. L. Wright Blvd. and north, the fire service cannot meet this standard at all (given current station and unit deployment).

Ability to Place 12 Firefighters on-Scene in 8-Minutes Rural / Metro - Scottsdale, AZ

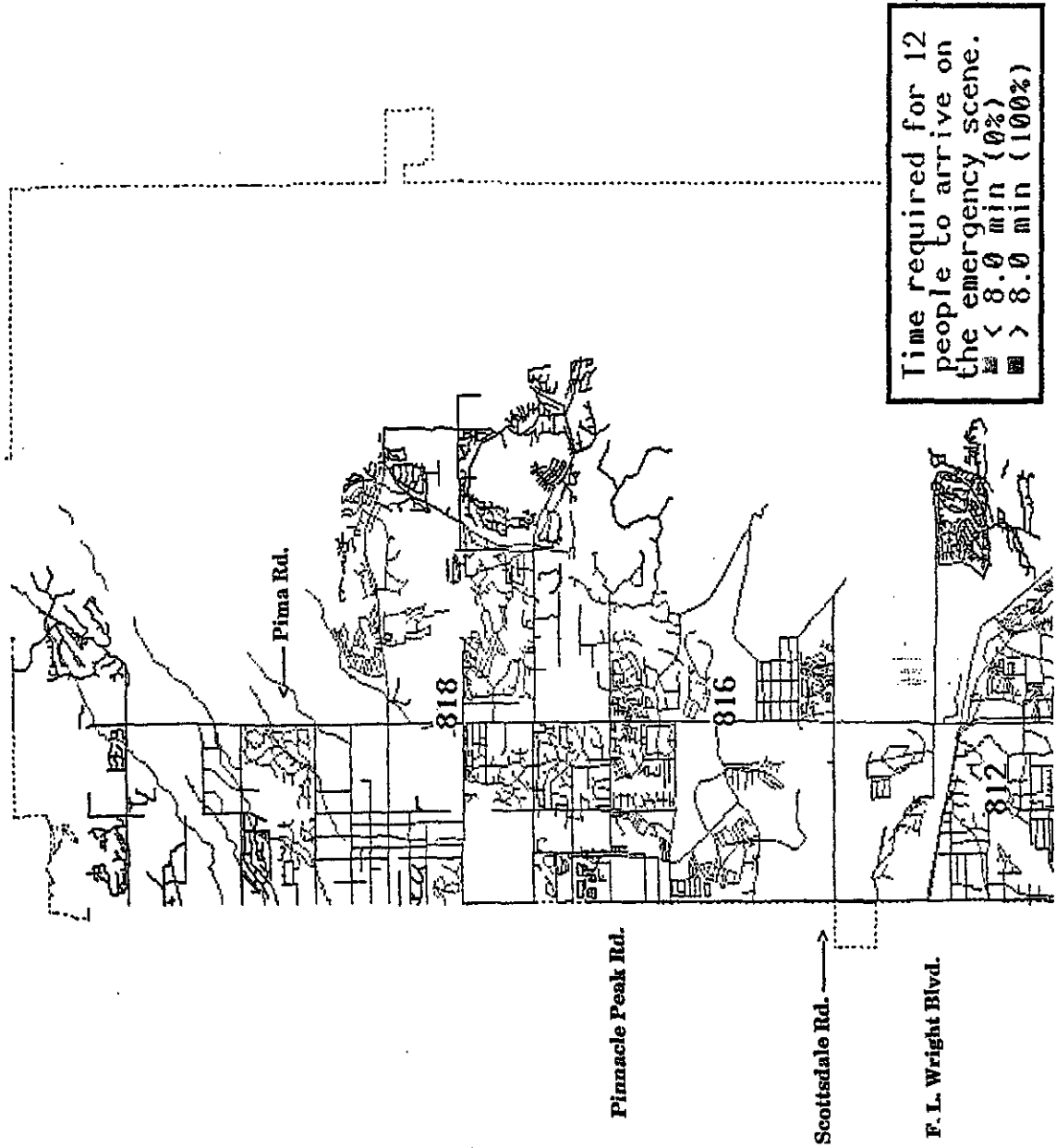
820



Ability to Place 12 Firefighters on-Scene in 8-Minutes (South Detail) Rural / Metro - Scottsdale, AZ



Ability to Place 12 Firefighters on-Scene in 8-Minutes (North Detail) Rural / Metro - Scottsdale, AZ



This analysis shows that Rural / Metro cannot meet the standard of placing 12 firefighters on-scene in eight minutes or less. However, the widespread distribution of sprinklers in the City should have an impact on the need to deliver fire services within that time frame. The sub-section, that follows, provides a summary of the results of the project team's analysis of the fire service's ability to place 12 firefighters on-scene in 12 minutes or less.

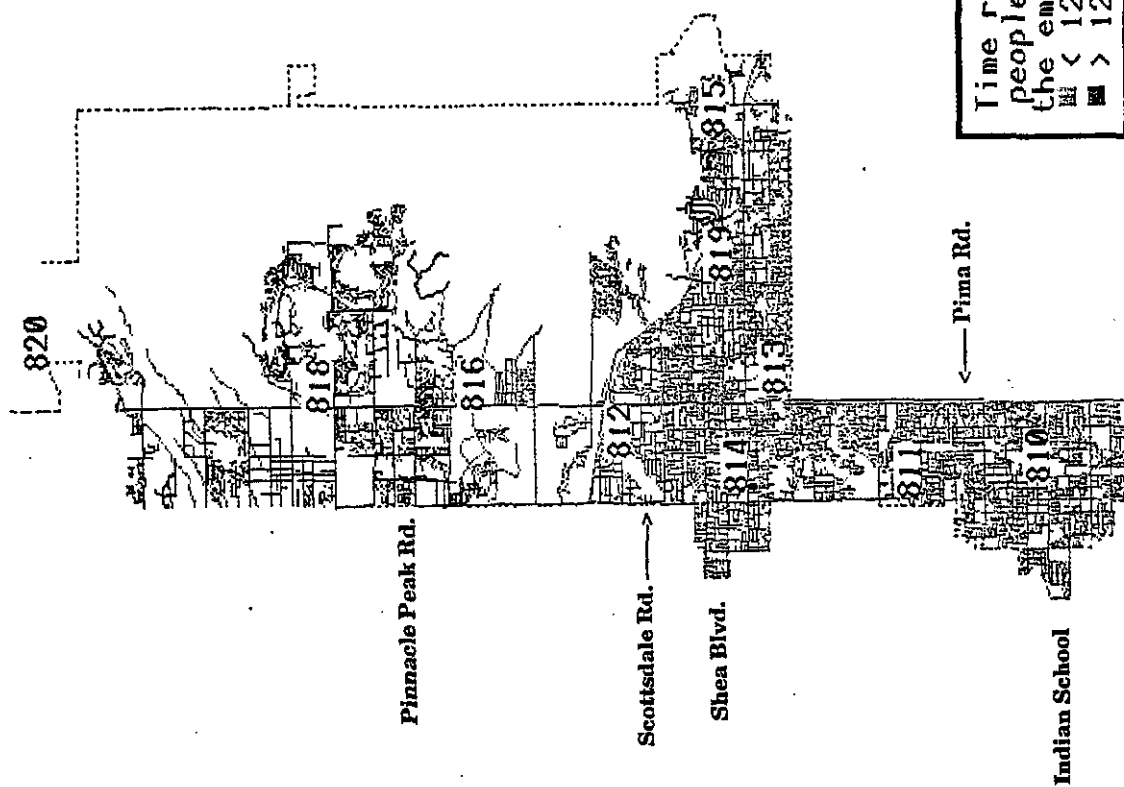
(4) **The Fire Service Can Achieve a 12-Minute Initial Attack in More Than 73% of the City.**

The project team evaluated the ability of the Rural / Metro fire service to place 12 firefighters on-scene in 12 minutes or less. The project team believes that this is a more relevant target for the City of Scottsdale due to the nature of the sprinkler ordinance and the impact that has had on the distribution of sprinklers throughout the City. These devices will slow the growth and the spread of fire within a structure, allowing firefighters additional time to reach the scene and to initiate their attack.

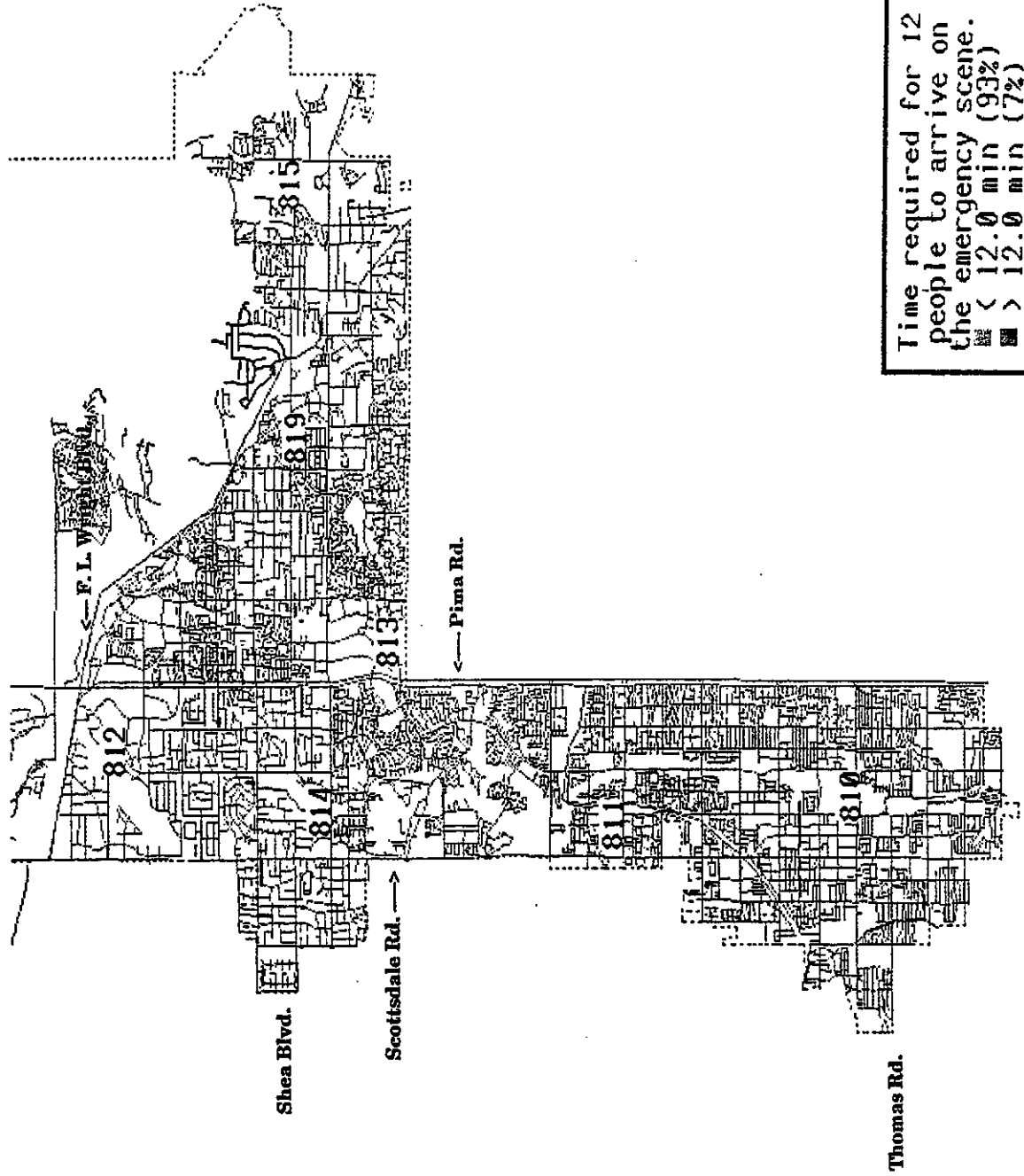
As with the preceding analyses, the project team has provided three maps as part of this section. The maps show the ability of the Rural / Metro fire service to place 12 firefighters on-scene in 12 minutes or less. The maps can be found on the following pages. The paragraphs, which follow, provide a summary of the results of these analyses:

- The first analysis shows that under the 12-minute standard, the ability to place an initial attack on-scene has been expanded to 73% of the City of Scottsdale (up from 49% using the eight minute standard). This shows includes most of the densely populated and developed areas south of F. L. Wright Blvd.

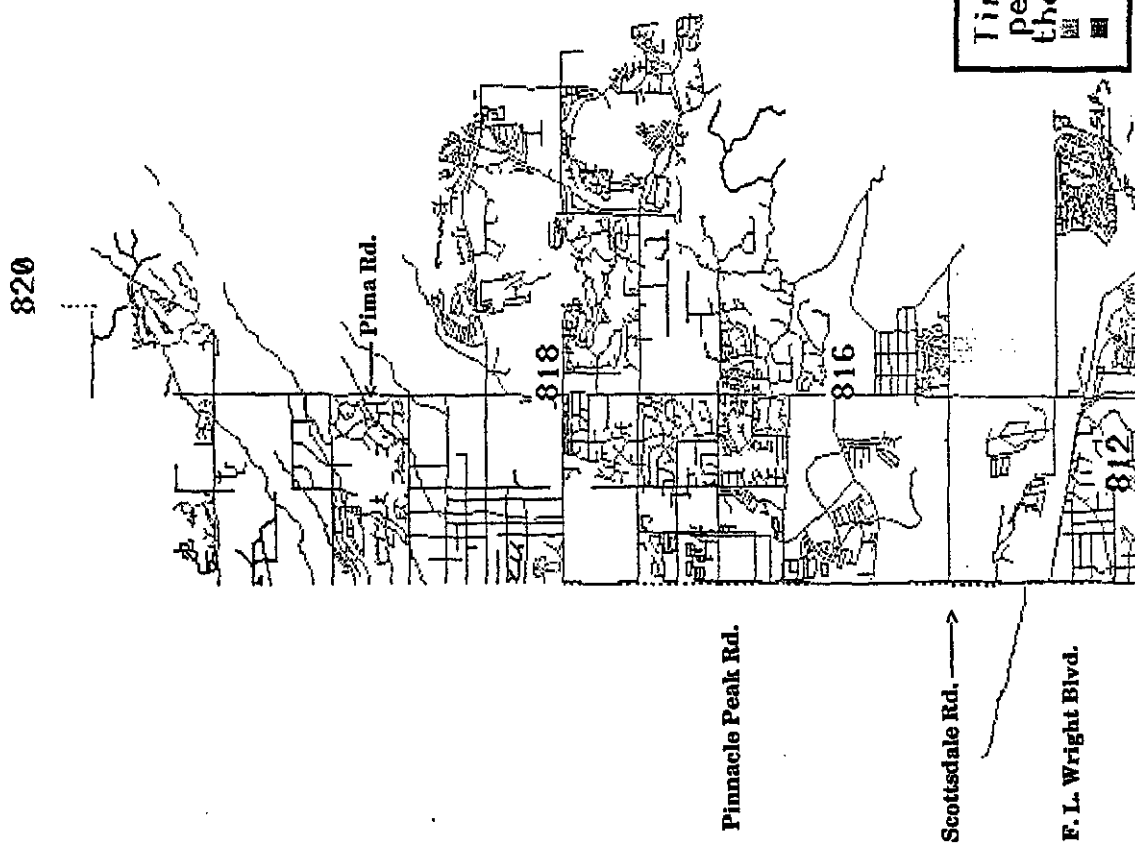
Ability to Place 12 Firefighters on-Scene in 12-Minutes Rural / Metro - Scottsdale, AZ



Ability to Place 12 Firefighters on-Scene in 12-Minutes (South Detail) Rural / Metro - Scottsdale, AZ



Ability to Place 12 Firefighters on-Scene in 12-Minutes (North Detail) Rural / Metro - Scottsdale, AZ



- The increase is most dramatic when the map showing the area of the City south of F. L. Wright Blvd. is examined. Rural / Metro can reach more than 93% of this area in 12-minutes or less with 12 firefighters. This is up from 61% under the 8-minute standard.
- Even the north section shows some improvement, with the areas around Station 816 receiving coverage from 12 firefighters in 12-minutes or less (this equates to 7% of the roads in this area).

Both the City and Rural / Metro have recognized gaps in the current network and are in the process of adding stations to fill those gaps. The following sub-section shows the impact of those new stations on the service delivery system.

(5) The Next Two Additional Stations Will Have a Negligible Impact on the Ability to Deliver a 12 Firefighter Initial Attack in the City of Scottsdale.

The final phase in this portion of the analysis was to examine the potential impact of the next two fire stations that are anticipated to open in the next 18 – 24 months. These include Station 817 and Station 827 (one at 100th / Bell Road east of Pima and the other on Pima Road at Ranch Road – South of Ashler Hills). The project team has provided three analyses in this sub-section:

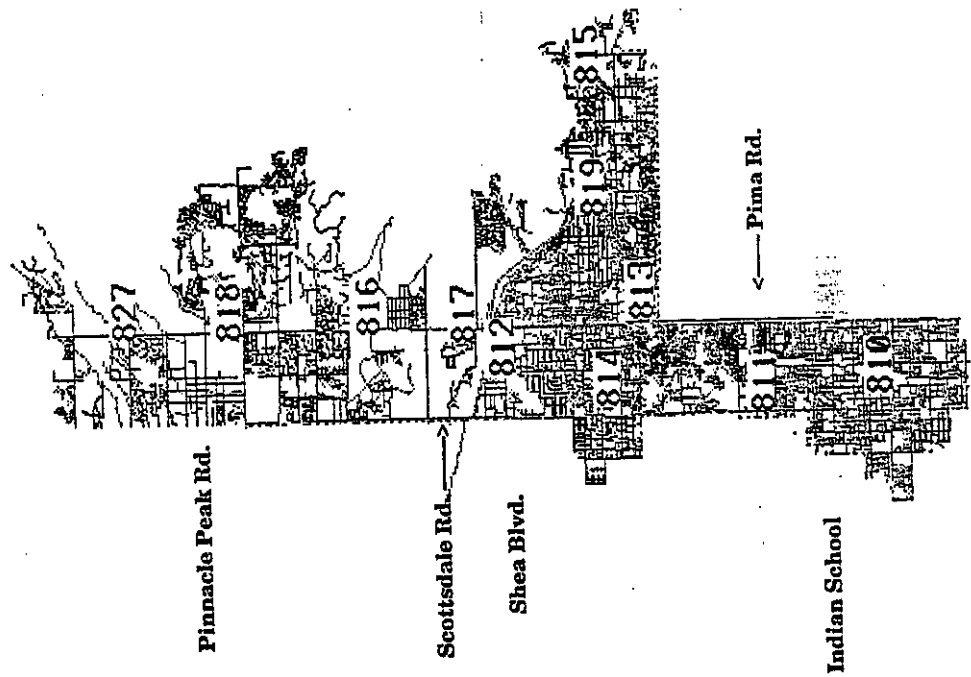
- The first examines the impact the new stations will have on the ability of the fire service to provide 12 firefighters on-scene in 8 minutes or less.
- The second evaluates the impact of the two new stations on the ability of Rural / Metro to place 12 firefighters on-scene in 12-minutes or less (the more practical standard for the City of Scottsdale due to the widespread sprinkler system in place in most structures).
- The final map shows the impact that the two stations will have on the ability for an emergency unit to reach the scene of an incident in four, six or eight minutes.

The analyses have been provided on the two following pages. The paragraphs, that follow, provide a summary of our findings:

Ability to Place 12 Firefighters on-Scene in 8-Minutes - Additional Stations in Place Rural / Metro - Scottsdale, AZ

111

820

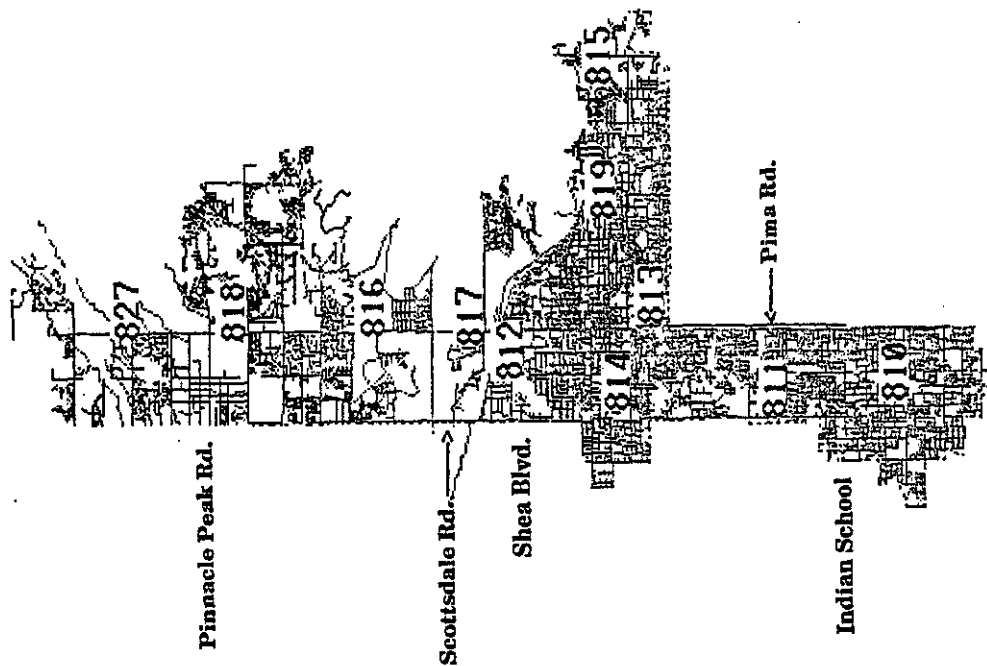


N.
N

Time required for 12 people to arrive on the emergency scene.
■ < 8.0 min (50%)
■ > 8.0 min (50%)

Ability to Place 12 Firefighters on-Scene in 12-Minutes - Additional Stations in Place Rural / Metro - Scottsdale, AZ

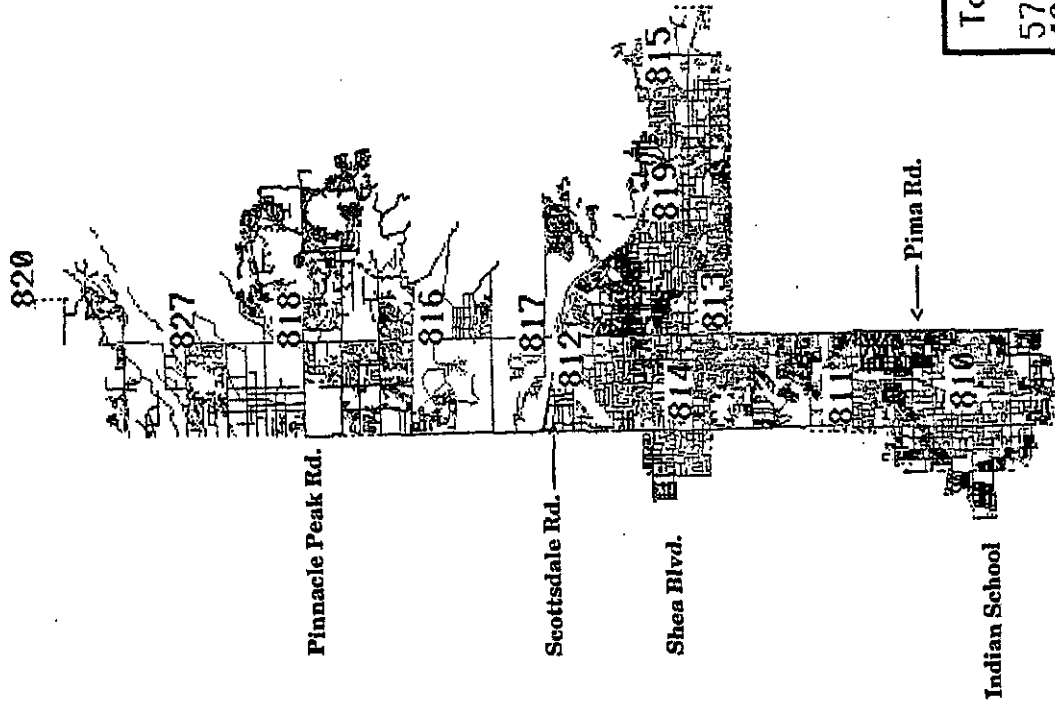
820



Time required for 12
people to arrive on
the emergency scene.
■ < 12.0 min (76%)
■ > 12.0 min (24%)

A N

New Distribution of First Company Response Times - Two New Stations **Rural / Metro - Scottsdale, AZ**



Total road miles for FIRST-IN company	
570.9 mi	(0-4min)
405.4 mi	(4-6min)
92.4 mi	(6-8min)

- Under the 8-minute standard the two additional stations will only increase the area of the City that meets the standard by 1% (up from 49% to an even 50%).
- Under the 12-minute standard, the two additional fire stations will also only increase the area of the City that can be serviced within the standard by 1% (up from 73% to 74%).
- The final map shows that slightly more significant benefit results from the improved ability to place a unit on-scene in four minutes or less throughout the City. This statistic has improved from 52% in four minutes or less to 54% in four minutes or less as a result of opening these stations.

While the addition of these two stations will clearly increase the level of service to those areas immediately around them, there is little impact on the ability of the fire service to deliver improved fire attack because of these two stations. It is important to recognize that both the initial unit on-scene and the initial attack are important determinates when evaluating a fire service deployment system. In fact, it should be argued that in the City of Scottsdale, the arrival of the initial unit on-scene (for both fire and medical reasons) is more important than the arrival of the initial structure fire response on-scene (due to the sprinklers in the City).

The next section of the report provides an analysis of future planning issues facing the fire services. This was developed with the assistance of the planning and growth management staff in the City of Scottsdale.

2. THE CITY OF SCOTTSDALE WILL CONTINUE TO EXPERIENCE GROWTH IN THE NEXT FEW YEARS.

This section of the report address the likely future growth of the City of Scottsdale (in terms of magnitude and location). In order to develop this section, the project team worked with the staff of the City of Scottsdale to obtain planning information describing growth expectations by planning zone for the entire City. A map depicting those planning zones can be found on the following page. The

- ## REACTANTS

JENNY LYNN

CIRCLE MOUNTAIN

HONDA BOW

ROCKAWAY HILLS

DESERT HILLS

JOY RANCH

STAGECOACH PASS

CAREFREE HWY.

DOVE VALLEY

LONE MOUNTAIN

DIXILETA

DYNAMITE

JOMAX

HAPPY VALLEY

PINNACLE PEAK

DEER VALLEY

BEARDSLEY

OUTER LOOP

FRANK LLOYD
WRIGHT BLVD.

GREENWAY

THUNDERBIRD
SWEETWATER

CACTUS
CHOLLA

SHEA

DOUBLETREE RANCH

McCORMICK

INDIAN BEND

McDONALD

CHAPARRAL

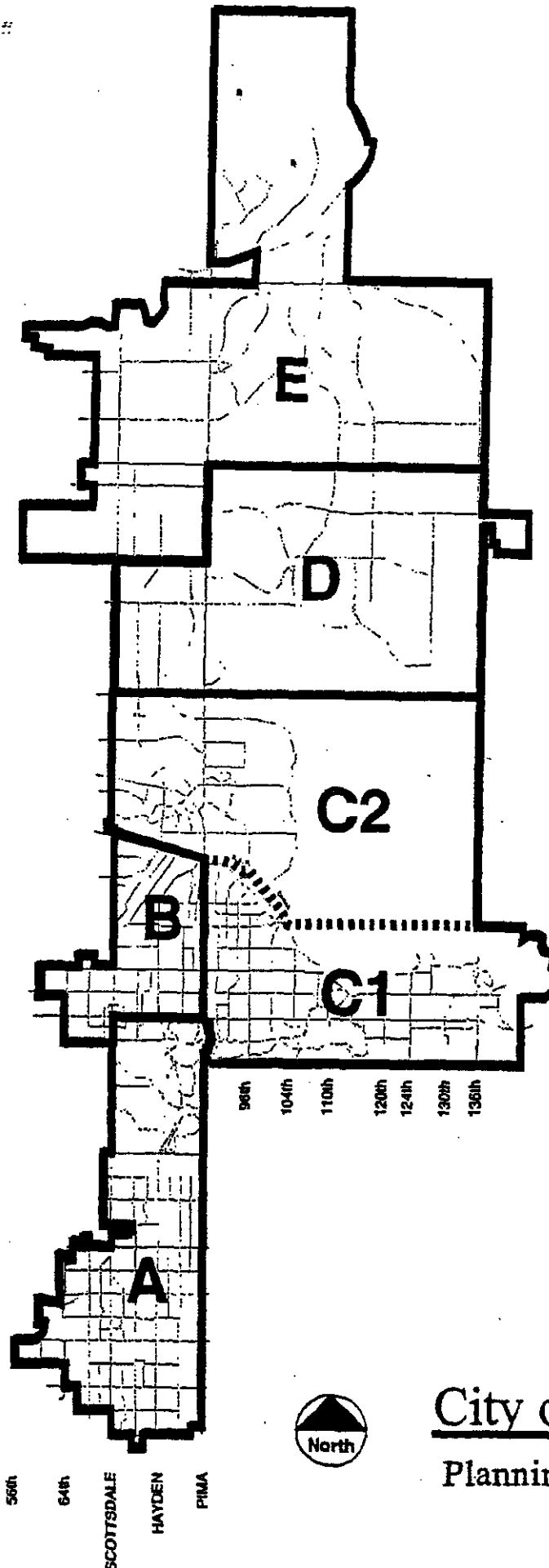
CAMELBACK

INDIAN SCHOOL

THOMAS

McDOWELL

McKELLIPS



City of Scottsdale

Planning Zones

- One of the driving factors in this growth is the expected increase in the number of residents per dwelling unit from 1.97 to 2.07 over the 20-year planning period. The primary driving force in this area, though, will be new development of currently undeveloped land.
- Zone D will also see some significant growth over the planning period (though growth in this Zone is limited by the inclusion of the McDowell Mountains Preserve).
 - Population will increase in this Zone from approximately 18,000 in the year 2000 to more than 38,300 in the year 2020. This is a growth of more than 113% over the 20-year period (this is the second fastest rate of growth in any of the planning Zones).
 - The number of dwelling units will similarly increase from 8,300 to more than 15,900. This is an increase of more than 92% over the 20-year planning period.
 - The number of residents per dwelling unit is expected to increase from 2.17 to more than 2.41 over the same planning period.
- Zone E will experience the fastest rate of growth of any of the planning Zones in the City of Scottsdale.
 - The population in Zone E is expected to grow from approximately 20,900 in the year 2000 to approximately 57,500 in the year 2020. This represents growth of more than 175% over the planning period.
 - During the same period, the City expects the number of dwelling units to increase in this Zone from 9,300 to more than 23,600. This is an expansion of almost 154% over the 20-year planning period.
 - The residents per dwelling unit is also anticipated to increase from 2.25 in the year 2000 to an estimated 2.44 in 2020.

This information can be used to anticipate the need for additional services to be provided by the City (or by its contractors as is currently the case with fire and EMS services). MAXIMUS has developed the following findings as a result of this planning information:

- There will be no need for additional fire stations or units south of Frank Lloyd Wright Blvd. and west of Pima Road, except to "tweak" the existing fire service delivery system. This is the area The project team's analysis (provided in the preceding section of this report) has shown the fire service delivery system south of F. L. Wright Blvd. to meet (except for some small gaps) two standards of service delivery (four minute initial response and 12-minute initial attack response) appropriate for the City of Scottsdale. The final section of this report looks at making small modifications to the existing service delivery system in this area of the City to enhance service delivery.
- The City and Rural / Metro are taking steps to provide additional fire service resources as growth occurs in the other planning areas. The City and Rural / Metro appear to have a well-reasoned approach to developing new fire service resources in Planning Zones C – E. Stations 817 and 826 have been located to begin the process of filling in the physical gaps between existing resources in these areas of the City. The project team has shown that the impact of these additions is not significant given current road network design – however, as more connective roads are added to the arterial system, these stations appear to be well-placed to service the growth in these areas.
- The McDowell Mountain Preserve will limit the need for additional resources in an area approach 30% of the City of Scottsdale's land area. This will impact the station location decisions made in Zones C – E and will create a virtual border for the City along the edge of the Preserve (where there will be no commercial development).

The following section provides our analysis of current management and oversight systems in place to manage operations and to guide the relationship between the City of Scottsdale and Rural / Metro.

3. **ALL FIRE APPARATUS SHOULD BE STAFFED WITH A MINIMUM OF THREE FIRE FIGHTING PERSONNEL.**

The City of Scottsdale, through its contract with Rural / Metro, operates a number of fire response units (there are additional medic units in the City which are not directly part of this contract). Of these units, the majority of engines and aerial units are staffed with three (and in some cases more when deputy fire marshals are available in the evenings) personnel. However, there are four units in

the City which are staffed with two personnel during the day (one of these goes to three in the evenings) including the following:

- Engine 808 (at Station 810)
- Engine 809 (at Station 810)
- Engine 811
- Ladder 811

With the exception of Engine 809 (which picks up a deputy fire marshal in the evenings and late nights) these units all operate with a minimum staffing of two firefighters (in some cases these are officers or paramedics). There is little support in the fire service nationally for the use of two person engine / aerial companies except in special circumstances (e.g., heavy volunteer participation, joint assignment with a second unit on all calls) for the use of two-person engine or aerial units.

The exhibit, on the following page, summarizes the research on this issue. The table shows that while larger engine companies can be beneficial in certain circumstances (dense urban areas) there is no significant benefit to using the larger companies in areas which are made up of risks such as those faced by Rural / Metro in Scottsdale. However, the research does show that a two-person company cannot effectively perform the required tasks at a fire or rescue scene.

Issue	Research Result
<ul style="list-style-type: none">• Number of personnel assigned to a unit -- especially for fire calls.• As with response time, engine company size is a significant factor in enabling personnel to control the spread of a fire.• Much debate in fire professional circles about optimum company size -- larger units can perform more tasks at a fire scene and more quickly.• Actual amount of staff required at specific fires dependent on size of structure, combustibility, etc.	<ul style="list-style-type: none">• Extensive research by the Dallas Fire Department has indicated that the relative effectiveness of 3, 4 and 5 person companies is least pronounced in the private, single-family residence fire and widens as the size of the structure involved increases.• Comparatively, fire departments serving large, metropolitan areas staff engine and truck companies with 4-6 firefighters or engine/truck companies serving high hazard areas (e.g., high levels of water flow required, high-rise structures, industrial occupancies, etc.).• In "ordinary" hazardous areas (single-family residential, small commercial, etc.), 3 person engine companies normally encountered and viewed to be effective mix of performance versus costs.

The project team recommends that the City of Scottsdale support the staffing of all fire units (engine and aerial companies) at a minimum level of three firefighters (regardless of rank) at all times. The deputy fire marshals should be viewed as additional staff and should not be counted as part of the minimum staffing for the unit (until they are 100% dedicated to the unit at night). The table, on the following page, provides an estimate of the staffing and fiscal impact of making this transition:

Factor	Impact
Number of Units Running With 2	4.0
Staff Required per shift	4.0
Shift Impact *	2.3
Total Staff Required	9.2
Annual Cost of Staff (Salary / Benefits)	\$55,000
Total Cost of Positions	\$506,000

* Assumes continuation of two platoon system with 85% net availability.

The table, above, shows that the cost to provide for these positions would be approximately \$500,000 annually. The project team recommends that the City of Scottsdale consider phasing these positions in over a period no greater than two fiscal years. If this approach is taken, one unit at Station 810 and one unit at Station 811 should be brought up to three-person staffing per year.

4. **CURRENT MANAGEMENT SYSTEMS CAN ENHANCE THE DELIVERY OF SERVICE THROUGH IMPROVED OVERSIGHT, COMMUNICATION WITH THE CITY AND TRAINING OF RURAL / METRO SUPPRESSION PERSONNEL.**

This section of the report provides the results of MAXIMUS's analysis of the service delivery and management systems of the Rural / Metro fire service in and for the City of Scottsdale. This section is focused on evaluating emergency operations and management systems of Rural / Metro fire service provided by Rural / Metro as they relate to the provision of services for the City of Scottsdale. The following approaches were utilized in conducting this portion of the study:

- The project team interviewed many members of the management team of Rural / Metro fire services in Scottsdale. This included the Assistant Chief for Operations, the Fire Marshal, the District Chief for EMS and Training and multiple Battalion Chiefs.
- The project team attended multiple incidents with various Battalion Chiefs and visited five fire stations – interviewing some of the crews on-duty at the time.
- We reviewed a variety of documents related to the operation of the fire service provided by Rural / Metro. These included policy manuals,

budgets and monthly activity reports, training records, inspection reports and station logs.

- We conducted an exhaustive study of dispatch statistics and run reports which serve as the basis of our evaluation of the operational aspects of the fire service.
- The project team undertook site visits to other cities and areas surrounding the City of Scottsdale to gain an understanding of the unique geographic demands of the City.

This section provides the summary results of each of the steps undertaken in this study.

(1) **Strengths and Improvement Opportunities in the Operations and Management of the Fire Service Provided by Rural / Metro Serving the City of Scottsdale.**

This sub-section is intended to provide the project team's finding and conclusions reached in this study of the Fire and EMS services provided to the City of Scottsdale. This serves as an introduction to the discussion of where operational effectiveness, incident command and management systems should be considered strengths; where there are issues associated with current practices; and potential alternative solutions and approaches to the issues.

(1.1) **The City of Scottsdale's Fire Defense and EMS Systems Have Many Impressive and Positive Features.**

The project team's review of the fire service provided by Rural / Metro in the City of Scottsdale has revealed many features and aspects of the fire service, its systems and structures, which are highly effective and unique. These attributes include the following:

- The fire service provides coverage of a wide geographic area with a very efficient staffing pattern.
- The fire service provides the City with higher staffing levels than may otherwise be available by the provision of firefighter staffed Rescue/Ambulances that are not directly subsidized through the City contract.

- The City's aggressive sprinkler ordinance provides a substantial mitigation to the threat of large-scale fires and life hazard. This reduction in community risk provides the potential for reduced investment in equipment and staffing not available to other, similar cities.
- High degree of flexibility in response patterns within the City, based upon hazard type and risk assessment.
- Specialized and Technical Services are provided and resources for these type of services (Technical Rescue, Hazardous Materials, etc.) are made available.
- The City is able to avail itself of Rural / Metro's regional fire service delivery network that provides a certain degree of regional economies of scale in infrastructure development and command staffing.
- The fire service provided by Rural / Metro utilizes an innovative staffing solution to increase productivity by having "Deputy Fire Marshals" work 8 hours of a 24-hour shift doing inspections and fire prevention activities then returning to the station for staffing level enhancement during after-hour times. These personnel also respond to major calls for service when they are on-duty and conducting inspections to augment response staffing.
- The fire service provided by Rural / Metro utilizes the Incident Command System that has been adopted regionally by the Regional Operations Consistency Committee (R.O.C.C.) of the Fire Chief's Association. In several incidents observed, it appeared as though Incident Command procedures were initiated in an appropriate and timely fashion.

The presence and implementation of an Incident Command System is universally recognized as an essential component of a safe fire-ground operating system. It is important that this element of operations be considered in any review of a fire service organization. The ICS System employed in the Rural / Metro fire service is the system that has been adopted on a regional basis. This provides for consistency of operations across organizational lines. The program is well defined within the Standard Operating Guidelines (SOG's) of the fire service. A review of that document reveals that it is consistent with the requirements of NFPA 1500 and incident command systems identified throughout the United States.

As with any system, it's true value can only be determined through its implementation. Based upon the project team's review of several incident sites and the analysis of radio traffic from multiple calls, it appears as though the system has been implemented to a high degree and is consistently applied throughout the organization. A secondary review was undertaken to analyze the ability of the system to deliver sufficient staffing to actually accomplish the objectives of an Incident Command System (ICS) implementation in the preceding section of this report.

While current staffing levels and community objectives are below the standards identified through industry research (and more recently through NFPA 1710), they are consistent with staffing levels found in many urban / suburban protection areas – particularly in areas with the degree of sprinkler utilization as seen in Scottsdale. Given the training of the Rural / Metro officer corps in the implementation of the ICS, it appears likely that there is sufficient staff to implement a very basic system given the nature of hazard most likely to be found within the Scottsdale area (which is minimal given the wide-spread use of sprinklers in all classes of structure in the City).

The project team also found that it appears as though the expectations of performance of fire suppression and EMS personnel relative to "ancillary" station activities and necessary support services / systems exceeds that found in many fire departments around the nation. However, the lack of a consistent reporting system makes it difficult to fully evaluate how much of this "ancillary" yet productive activity is actually taking place.

(1.2) Training Could Be Enhanced by Greater Coordination and Enhanced Evaluation of Effectiveness.

The project team identified several instances where the lack of a centralized coordination role negatively impacted the operation of the fire service provided by Rural / Metro. The training function is essentially divided into three aspects:

- **Mandatory training** which is primarily related to OSHA, but also includes training required by certification requirements.
- **On-going operational training** which is the traditional function of the training division within the fire service provided by Rural / Metro.
- **Specialized training** is coordinated through the specialized teams themselves (i.e., HazMat, Technical Rescue, etc.).

The implementation of the Labor/Management committee on Firefighter Training and Development has had a major impact on the tasking of the training division. The challenges and opportunities posed by this mechanism are addressed in the following sub-section of this report.

(1.3) Several Issues Impact the Delivery of Services and the Oversight of Operations Within the Fire Service Provided to the City of Scottsdale.

The project team has identified several issues for further study in this report, these include:

- Members of the Rural / Metro team, including the command group, are unable to identify or articulate the presence of a formal, organization-wide planning process. The primary factors that drive the management of the fire service appear to be the contract for services with the City of Scottsdale and the internal budgeting process of Rural / Metro itself. Challenges related to this issue include data collection, management control and information systems, and the technological infrastructure available to support both present and potential management systems.
- There are issues with the internal reporting, management and oversight systems used by Rural / Metro in Scottsdale.
- An examination of the current reporting structure between the City of Scottsdale and Rural / Metro reveals some duplication and lack of

clarity in reporting relationships. This causes concern and frustration among both City staff and Rural / Metro.

- The current mechanism for scheduling employees is handled by a distinct division within the fire service. The current processes for scheduling have been in effect for quite some time during which the degree of specialization, size of the organization, and work rules have changed significantly.

The following sub-section provides the project team's analysis of these issues.

(2) **Analysis of Current Management Systems Shows That There Are Several Improvement Opportunities Which Could Be Achieved.**

This sub-section of the report is intended to provide City of Scottsdale with a summary analysis of the issues described in the previous sub-section. Each issue will be discussed and analyzed in terms of its impact on current operations and any potential improvements in efficiency or effectiveness that might result from making changes to the current approach. Finally, recommendations are made including implementation alternatives.

(2.1) **Scheduling and Implementation of Training Should Be Coordinated More Effectively.**

The training efforts of the fire service can be divided into two distinct categories. The first category can be identified as "Mandated Training" (i.e. training required by standard or mandate such as those required by OSHA). The second category can be categorized as operational training (i.e. training conducted to enhance operational effectiveness and efficiency).

The Mandated Training is now coordinated through a single position that was appointed subsequent to an investigation and resulting negative findings by the Arizona Department of Occupational Safety and Health (OSHA). Many of the deficiencies for which the fire service provided by Rural / Metro was cited were with respect to record keeping related to training and diagnostic screening for

communicable diseases. As a result, an OSHA Coordinator position has been established and now tracks mandatory training delivery within the fire service. This level of control provides a high degree of assurance that these training experiences will be delivered.

A secondary issue within the category of "Mandatory Training" is the record keeping associated with technical training such as confined space rescue and hazardous materials. These types of technical training, with which are accompanying mandated training requirements, have those training efforts managed and tracked by the supervisors of the respective teams. There does not appear to be a centralized collection point for the records associated with minimum training requirements for these functions.

Operational Training is controlled by four primary mechanisms and elements:

- **Daily Training** is the responsibility of the company Captain and is usually associated with didactic review of materials. Additionally, Battalion Chiefs conduct daily manipulative drills with various crews. This accomplishes both skills maintenance and the attaining of "multi-company" drill requirements. All parties acknowledged that this practice is minimally practiced during the summer months because of the heat associated with the Scottsdale area. However, all parties universally recognized that these types of drills do occur frequently during other times of the year.
- **Weekly Training** is regional in nature. The Technical Rescue Teams and the Hazardous Materials Response Team attend regional training efforts one day every week.
- **Monthly Training** is associated with Specialty Teams and Paramedic Continuing Education. Specialty Teams provide training a minimum of two times per month. The local hospitals provide a minimum of two-hour continuing education sessions as required for paramedic recertification. The Scottsdale ALS system requires a minimum of 24 hours of continuing education per year for each paramedic desiring recertification.

- Quarterly Training is determined through the Labor/Management Committee and deals primarily with specialized topics of relevance to the organization. These training events, once designed, are implemented in such a way as the same training event is offered two times per week for the entire three-month period. This was established in order to assure that all personnel, regardless of vacations, sick leave or shift trades would be exposed to this training. Despite the high degree of redundancy, however, the penetration of this training is still limited within the organization. The primary factors limiting this exposure appears to be the unwillingness of some Captains to rotate personnel among the Rescue and the Engine apparatus, the lack of a broadband educational channel, and (paradoxically) the massive redundancy of the training itself.

The next sub-section examines the management and oversight of the training function in Rural / Metro in Scottsdale.

(2.2) Management of the Training Function Has Been Handed to a Management / Labor Committee for Oversight.

The primary planning mechanism for the training function has been contractually obligated to a Management / Labor Committee through the existing labor contract. This committee is contractually comprised of four members of management and four members from labor. However, in interviews, management members on the committee felt that labor had approximately seven members on the committee. The manner of implementation of this committee has resulted in most, if not all, of the committee's work requiring approval of the Executive Labor / Management Committee of the fire service.

While most participants believe that the current training environment is an improvement over past systems, there are still issues of qualitative evaluation, actual implementation of ideas that are generated, and a lack of a firm understanding of mission and/or goals.

- Qualitative evaluation of training. The primary evaluation of training efforts is based upon the number of training hours attributed to personnel. This requirement is clearly driven by the contract for services between the City of Scottsdale and Rural/Metro Corporation.

There are limited independent mechanisms for evaluating the comprehension or retention of material or the performance level of companies. Rural / Metro management stated a belief that training performance was reflected in, and controlled through, the performance appraisal process of all personnel throughout the organization. However, interviews with Battalion Chiefs and Captains revealed that this emphasis of the qualitative aspect of training was not clear to them in the discussion of their performance reviews.

- **Implementation of ideas through the committee process.** Universally, participants in the training committee process stated a belief that the training process was improving and had improved over the past 12 months. There is, however, stated confusion about the exact charge of the committee, its authority, and reporting responsibilities. While required as part of the contract, there is limited accountability built into the system. What results is a process whereby contentious issues are forwarded up the organization to an executive level Management/Labor committee, which then resolves the issues of contention. In some cases, the actual implementation plan is not clearly defined with a commensurate lack of specific accountability. This results in a perception throughout the organization that the process has stalled or is not working well.

Ideas that are accepted are forwarded to the Battalion and/or District Chief that sits on the committee for implementation. Lacking specific guidance as to the organizational priority of these recommendations, they are managed on a basis that is dependent upon the priorities of the individual Chief officer.

There does not appear to be a feedback mechanism in place for the review of the decisions and plans of the Management / Labor training committee. As it is structured now, such a feedback loop would be problematic as there is no over-riding policy as to the mission, responsibilities and / or decision-making mechanisms of this committee. Also absent is an element of central accountability. There are many specialized operations within the fire service that include ALS services, hazardous materials, technical rescue, Nuclear, Biological and Chemical (NBC) programs. There is no central repository of information on these various training needs / opportunities.

- **Definition of mission, goals and practices.** The contractual charge (in part) of the "Firefighter Training and Development Committee" is as follows:

"Scope: All hiring practices, testing procedures and recruitment strategies; identify training issues, needs and enhancements; define rules for engagement; develop and maintain S.O.G.'s; define training requirements; and Q.A. for EMS documentation."

While this section identifies the "scope" of the committee, it does not clearly set out a mission or values to guide the committee in its actions. This results in an inability to prioritize and/or focus the group's efforts. A universal comment with respect to the committee framework noted that much of its effort was spent reacting to the specific issues that lay on individual, personal agendas of certain committee members. While this is obviously a worthwhile component of the committee process, in the absence of a shared understanding of the committee's purpose, goals and focus, it leads to fragmented decision-making and contributes to a certain lack of efficiency.

- Development, either through Executive Labor/Management Committee or other appropriate mechanism, clear and concise purpose, decision making processes, and priorities for each sub-committee.
- Once adopted by the appropriate body, committee actions should have clear accountability assigned to them with an evaluation or feedback mechanism in place to measure their effectiveness.
- Implementation of video training to a greater degree than is currently found within the fire service. Ultimately, the fire service should aim to work with the City cable franchisee or satellite provider for a dedicated "I-Channel" (Broadband, 2-Way interactive "Instructional Channel") for in-station delivery and evaluation of training.

These changes will enhance the delivery of training within Rural / Metro's fire service operations in Scottsdale.

(2.3) Sharing Training Staff Does Not Offer Significant Benefits to Either the City or Rural / Metro.

While the City and Rural / Metro already share a training facility, the project team also evaluated the potential benefits from sharing staff at that facility. It has been suggested that such an approach could result in savings as personnel are shared. The project team examined this issue and has identified the following results:

- Personnel who are assigned to a joint center for the sole purpose of administering the center, providing scheduling and other similar functions can be shared between various public safety services with some savings realized.

- Training staff generally are not a resource which can be easily shared between services. The training requirements for these services are such that the expertise required of the staff who provide training generally does not lend itself to application with the other services. For example, use of force training would have as little benefit to the fire service as hose line skills would to the law enforcement personnel in the City.
- In many instances, trainers are drawn directly from the line personnel in the various services. This will continue to be true for some time (on the very largest departments can afford to operate with only dedicated training personnel).
- Sharing of staff between the public and private sectors would also be a difficult challenge to overcome. Even if these personnel were the employees of one or the other, there would remain the need to account for their time to ensure that their costs were allocated correctly. This would introduce another cost into this approach.

The project team does not recommend that the City extend the concept of the joint training facility to the level of joint training staff at this time. The City will not reap the same benefits from sharing staff that they have reaped from maximizing the use of a significant capital investment.

(2.4) The Overall Effectiveness of the Fire Service Could Be Enhanced Improving Management Approaches and Systems.

Members of the fire service, including the leadership team are unable to identify or articulate the presence of a formal, organization-wide planning process. The primary factors that drive the management of the fire service appear to be the contract for services with the City of Scottsdale and the internal budgeting process of Rural / Metro itself.

- **Data Collection:** There is substantial data collected with respect to the organization's performance against a variety of parameters. This data comes primarily from the Fire Prevention Division. Comparative statistics of cost, fire loss and several other valuable performance measures are produced. From interviews with management staff, however, it appears that these data are used primarily for external education and marketing purposes. There does not appear to be a conclusive planning and evaluation process within the fire service

wherein performance goals are identified and organizational activities managed to accomplish those identified performance levels.

- **Battalion Chiefs and Mid-Level Management:** As with any contemporary organization, a critical element of organizational effectiveness is found at the mid-management level. In the case of the Rural/Metro fire service provided by Rural / Metro, this is the Battalion Chief level. From an operational perspective, the fire service provided by Rural / Metro maintains 4 shift-based Battalion Chiefs. Each shift is comprised of 2 Battalions, geographically defined approximately by the bisecting of the City into northern and southern areas. Each battalion has a Battalion Chief assigned to it on each shift. The primary challenges related to day-to-day supervision are summarized below:

- **The large geographic area covered. Especially in Battalion 2 (or the northern area of the City).** The extremely large north-south distance of the City makes day-to-day communication as well as effective emergency scene supervision very difficult - especially in the stations that lie in the northern part of the City of Scottsdale. Given the requirements for the Battalion Chiefs to attend meetings and provide administrative support around the central administrative facility, combined with the organization's reliance on face-to-face communication, the degree of supervision, feedback and communication provided to some of the outlying stations is minimal.

Additionally, the extremely long response times for the Battalion Chiefs from the center city area to the far northern areas of the City results in Battalion Chiefs not responding to some calls which, in other areas of the city, necessitates the presence of a Chief officer.

- **The absence of a well defined, organization-wide planning and objective setting process.** The organization does not possess a clear and well defined process for identifying, communicating and evaluating the goals, objectives and resultant expected tasks of the individuals within the organization.

A common theme among members of the organization was a stated frustration of an organizational norm of "crisis management" and focus on day-to-day tasking.

The Fire Prevention Division was unique in holding annual planning sessions. These sessions provide an opportunity for involvement of staff in the planning process, a reporting of prior years performance, and two-way communication of issues,

challenges and opportunities. There does not appear to be a similar mechanism within the operation division.

The reporting system from the "Station Level" to the "Battalion Chief" level varies among shifts. Many of the reports reviewed by the project team reveal a lack of uniformity and an inconsistency of emphasis. Other than the performance standards identified in the service contract between the City and Rural/Metro, there are no divisional or organization wide goals or objectives identified.

The transition to a Management/Labor committee process without the attendant change in organizational systems and structures. The organization has implemented a series of Management/Labor committees that are mandated through the collective bargaining agreement with the firefighter's labor group. It is apparent that the organization has not altered its systems and structures to reflect the new lines of authority or responsibility.

This has resulted in a high degree of frustration, confusion and resignation among the Battalion Chiefs. Power relationships have been dramatically changed, but no clear explanation of the organization's expectations as to the impact of these changes on the role of the Battalion Chiefs has occurred. There is a high degree of uncertainty demonstrated among all the Battalion Chiefs as to their role and appropriate use of power within the framework of the Management/Labor committees. The high organizational focus on the formation and operation of these committees has left a high degree of confusion, both among the Battalion Chiefs and their subordinates as the exercise of power and discretion. As a result the degree of control (both through evaluation and direct discipline) varies widely from shift-to-shift and even station-to-station within the same shift.

The fragmentation of the organization's employee performance evaluation system. There are multiple functions within the fire service that were identified as having their ultimate control point in the employee performance reporting system.

Notwithstanding how it may be designed, the practical reality of the current system does not provide for an integrated review of performance throughout all levels of the organization. For example, the Battalion Chiefs evaluate the performance of the Captains under their supervision. However, the "checkbox" format and limited scope of the evaluation provides for limited ability to review performance of lower level subordinates or the performance of the station or company "team" as a whole.

- **Management Systems:** The following processes were identified by fire service provided by Rural / Metro staff as the management tools that were utilized in the monitoring of performance, evaluation and feedback:
 - Response Time and Exemption Report data
 - Informal Feedback from "Field Personnel"
 - Chief and Support Staff Meeting (2 per month)
 - Labor/Management Committees

The data set and process for developing and harvesting data related to response time compliance and exemption reporting is well established and serves the needs of the fire service and the City alike. Beyond response time compliance, there does not appear to be an on-going and integrated Management Information System that allows for the development of data to measure other aspects of organizational performance. As mentioned in the previous section, the absence of a well-articulated and widely understood sense of organizational goals and purposes make the measurement of system performance outside of response times most difficult.

All management employees interviewed indicated that their primary mechanism of management communication and control was "face to face" communication. While this is an ideal circumstance, the current geographical and organizational realities in the City of Scottsdale limit the effectiveness of "face-to-face" communications from an organizational perspective. As the fire service and the City grow larger, the need for an integrated management system will become geometrically greater.

- **Technological Infrastructure** Currently many of the stations within the Scottsdale fire defense system are operating their data systems through the internet utilizing dial-up, 56K Modems. The large data packages attendant in the reporting system, slow the system to the point where it becomes difficult for the remote user to enter the required data. In some cases, this may be contributing to missing or incomplete data in the existing data universe. This issue combined with the lack of video training capability, highlights the need for investment in broadband, interactive data channels.

The project team offers the following recommendations for improving these systems and approaches:

- The fire service provided by Rural / Metro should develop and implement a strategic and tactical planning process at some pre-determined time interval (i.e. annual or 2-year Plan).
- The fire service provided by Rural / Metro should develop a Management Information System that provides data to measure organizational performance against specific goals of performance identified in the planning process in Recommendation 1 above. Such measures of organizational performance should include all aspects of organizational tasking beyond response time measurement and exemption reporting.
- The fire service provided by Rural / Metro should provide management and supervisory training for personnel prior to their appointment in management or supervisory positions.
- The fire service provided by Rural / Metro, in conjunction with the City of Scottsdale and other relevant parties, should consider the implementation of a broadband communication infrastructure.

Rural / Metro should review and modify their current employee performance system and integrate it in conjunction with the achievement of objectives throughout all levels of the organization.

(2.5) The Current Relationship and Accountability Structure Between the City of Scottsdale and Rural / Metro Could Be Clarified and Streamlined.

An examination of the current reporting structure between the City of Scottsdale and Rural / Metro reveals some duplication and lack of clarity in reporting relationships. Some features of these situation can be summarized below:

- The Fire Chief of Rural / Metro (representing fire and emergency medical service delivery systems) and an Assistant City Manager (representing contract oversight for fire and emergency service delivery systems) both sit on the Leadership Committee of the City.
- The Fire Chief (i.e., from Rural / Metro) also reports to the Emergency Services Director relating to operational issues.
- The Emergency Services Director – who has direct responsibility for contract compliance and operational liaison – has a dual reporting relationship to the Police Chief / Director of Public Safety and an Assistant City Manager while having the Fire Chief operationally reporting to him.

The increased emphasis on Emergency Management and Disaster Preparedness in the wake of the recent terrorist activities requires an examination of the tasking and priorities of the Emergency Management Division. Contract administration and development may be more appropriately handled from within the City Manager's Office allowing the Emergency Management Division to focus on core, public safety issues within their purview.

The reporting relationships for contract administration and performance should be clarified. The best option would provide for direct contract and compliance administration by a contract administrator / project manager within the City Manager's Office. This would alleviate the dual reporting relationships while preserving the law enforcement and fire / EMS presence on the Citywide Leadership Committee. It would have the additional benefit of providing professional contract and business administration with direct reporting to an appropriate level of responsibility.

(2.6) The Process of Scheduling Shift Coverage Has Significant Limitations Caused by Such Factors as Specialized Assignments, Lack of Clear Guidelines and a Certain "Informality."

As in many fire service organizations, the practices involved in scheduling staff to fill allocated positions has a dramatic impact on both organizational effectiveness and employee morale. The current mechanism for scheduling employees is handled by a distinct division within the fire service. The Scheduling Division is staffed with two, full time, positions. This current processes for scheduling have been in effect for quite some time during which the degree of specialization, size of the organization, and work rules have changed significantly.

There is a lack of clarity among the Battalion Chiefs as to their responsibilities and the schedule of the "schedulers" – which is important as the Battalion Chief becomes the de facto schedule manager in the absence of both members of the scheduling division. During the project team's interviews, it became apparent that this lack of clarity often results in Battalion Chiefs having to "crises manage" staffing issues. This results in a disregard of overtime assignment protocols as the emergency nature of the staffing situation appears to over-ride such issues.

Issues such as certification to drive Truck Companies, paramedic certifications, Technical Rescue certifications and HazMat certifications all impact the decision making as the filling vacant slots. Given only two shifts to fill from, the limitations of some of these specialized slots can be challenging.

These specific challenges, among others, have reportedly resulted in an increasing utilization of "mandatory hold-over" or "mandatory overtime." This is exercised whenever the fire service is unable to acquire the necessary people to provide constant level staffing on the apparatus within the system. While it is uncommon for fire departments of this size to have a separate scheduling unit, the project team believes that it is necessary given the complexity of the current situation (made more complex by the use of the "Kelly squad" used to cover Kelly days for Rural / Metro line staff throughout this area of the County).

5. **TRAINING OPERATIONS CAN BE IMPROVED WHILE VEHICLE MAINTENANCE APPEARS TO BE PROVIDED AT A HIGH STANDARD OF SERVICE.**

This section provides a summary of the project team's analysis of the provision of in-station training as well as the delivery of vehicle maintenance. Both of these operational support functions are critical to the ability of the staff to

respond effectively to emergencies in Scottsdale. The first sub-section, that follows, provides a summary of the project team's evaluation and recommendations for enhancing the delivery of on-duty training.

(1) **Training Can Be Enhanced by Improving the Consistency and Delivery of On-Duty Training for Suppression Personnel.**

MAXIMUS also believes that training in the field by on-duty companies (currently overseen by the Battalion Chiefs and provided by the station Captains) could be enhanced by centralizing the development of the curriculum for these daily training exercises and maintaining the decentralized provision of these exercises. In addition, the project team believes that Rural / Metro staff in Scottsdale would benefit from a common approach to providing this training. The project team recommends the following steps take place to address this initiative:

- The City of Scottsdale should authorize one additional position to coordinate these training efforts. This position should be filled with an individual who has a broad knowledge of fire / rescue issues and who can (or already has) obtain certification as a trainer (following the standards set forth by the NFPA for a training officer). The project team recommends that this position be a sworn position, filled with a Captain level officer.
- Once this position has been filled, Rural / Metro should take steps to develop a centralized training curriculum. While there is no national standard for continuing education for fire suppression / rescue personnel, there are many standards and standard texts from which to develop such a curriculum.
- Many departments base their continuing education program on the International Fire Service Training Association – or IFSTA – “Essentials of Fire Fighting” which is now in its fourth edition. Typically, topics are taken right from the manual itself.
- Using the IFSTA “Essentials of Fire Fighting” manual, Rural / Metro should develop a uniform (i.e., consistent) training curriculum that covers the topics listed in the following table (each topic should cover one – two hours per session):

Topic Number	Topic Description
1	Fire Behavior – Sources of heat, heat transfer, fire behavior, thermal layering, products of combustion, fire extinguishment and classification of fire and extinguishment methods.
2	Portable Extinguishers – Rating system, types of extinguishers, inspection and maintenance of units.
3	Personal Protective Clothing – Inspection, care and use of personal protective equipment. Demonstrate ability to put on personal protection clothing within department standard.
4	Protective Breathing Apparatus – Inspection, care and use of personal breathing apparatus. Review rescue or “buddy” breathing, etc.
5	Ropes and Knots – Rope materials, construction and uses. Life safety and utility rope. Review and demonstrate basic knots. Rope care and maintenance. Storage of ropes. Review of hoisting tools and equipment (including secondary use of common fire fighting tools such as hose lines, ladders, pike pole, etc.).
6	Rescue and Extrication I – Review of rescue and extrication equipment and maintenance. This should include both hydraulic and manual tools (block and tackle, cribbing, etc.).
7	Rescue and Extrication II – Carries and drags. Lone rescuer lift and carry. Extremities carry, blanket drag, use of litters and backboards. Rope rescue techniques. Burning building techniques.
8	Rescue and Extrication III – Vehicle extrication. Situation assessment. Working with EMS to stabilize patients. Vehicle stabilization. Disentanglement and victim removal techniques.
9	Rescue and Extrication IV – Special rescue situations – building collapse, trench collapse, caves / tunnels, electrical contact, water rescue, industrial extrication, elevator rescue, escalator rescue. Working with helicopters (landing procedures, finding safe landing areas, etc.).
10	Forcible Entry I – Review of forcible entry tools, care and maintenance of forcible entry tools. Opening doors. Opening windows.
11	Forcible Entry II – Opening floors (wood and concrete). Opening walls (masonry, veneer, metal, wood frame, partitions).
12	Ventilation I – Advantages of ventilation, assessing the viability of ventilation, vertical ventilation (including safety considerations).
13	Ventilation II – Horizontal ventilation (including precautions against using it), forced ventilation (both negative-pressure and positive-pressure).
14	Ladders I – Ladder types (ground and aerial). Safety, use and maintenance. Service testing ground ladders. Test all ladders assigned to the unit.

Topic Number	Topic Description
15	Ladders II – Handling ladders. General procedures for raising and climbing ladders. Ladder raises (1, 2, 3 and 4 firefighter approaches). Helping victims down a ladder.
16	Water Supply – Principals of municipal water systems. Kinds of pressure. Fire hydrants. Review locations in the first due area. Alternative water supplies (drafting). Rural water supply operations.
17	Fire Streams – Review friction loss and water hammer issues. Fire streams. Fire nozzles. Use of foams.
18	Fire Hose I – Construction and care of hose. Hose couplings. Hose appliances and tools. Hose rolls. Direction of hose lays. Basic hose loads. Coupling and uncoupling hose. Pre-connected hose for attack lines.
19	Fire Hose II –Hose lay procedures. Handling hose lines. Advancing hose lines. Operating hose lines. Deploying master stream devices. Service testing hose lines.
20	Fire Control – Suppressing Class A fires. Suppressing B fires. Suppressing Class C fires. Suppressing Class D fires. Fire company tactics.
21	Automatic Sprinkler Systems – Fundamentals, water supply, types of sprinkler systems. Working fires / after the fire in sprinkler protected property. Shutting off the water in the sprinkler system.
22	Salvage and Overhaul – Planning for salvage operations. Salvage covers and equipment. Methods of folding and spreading salvage covers. Improvising with salvage covers. Covering openings. Overhaul operations.
23	Building Construction – Types of buildings and their basic hazards. Impact of fire on common materials. Firefighter hazards from building construction (light weight and truss construction).
24	Fire Cause Determination – Firefighters roles. Role of the fire investigator. Conduct and statements. Securing the scene. What to do / not to do.
25	Communications and Incident Command – Use of the public information officers. Use of emergency communications equipment. Review basic codes and operating procedures. Fire ground communications. Incident command procedures.
26	Fire Prevention and Education – Fire company inspection procedures. Pre-fire planning exercises. Fire hazards. Dwelling inspections. Smoke / CO detectors. Fire exit drills for schools. Fire station tours.

Topic Number	Topic Description
27	Firefighter Safety – Safety standards. Rapid Intervention Teams. NFPA 1500. Physical fitness. Fire ground safety. Tool and equipment safety. Emergency power and lighting. Safety on the apparatus. Safety in the station.
28	EMS / AED Review – Review basic CPR and the use of the AED (automatic external defibrillator).

- The goal of this program should be to ensure that all personnel are able to maintain their fire suppression skills (which can go unused in any practical sense for a long time). This should be accomplished by training one – two hours during each shift worked.
- Staff can either follow the schedule numerically or they can do the topic that matches the date. Special consideration may need to be given due to the extremes in temperature that can occur in the summer months. However, training should not be curtailed in these months – simply adapted to the conditions (i.e., perhaps focusing on those topics that can be covered inside). This approach assumes that these topics would be covered at least twice per year (with EMS training filling in the available times).

A number of agencies around the Country have successfully introduced this approach to providing training. Examples of these agencies include the City of Anaheim (California) and the City of Newport Beach (California). Each of these agencies has used this approach (with the topics modified and expanded to cover their particular areas of interest).

The paragraphs, that follow, provide a summary of the project team's recommendations in these areas. Rural / Metro should establish a command level position responsible for planning, coordinating and implementing all aspects of firefighter training and development activities. Other actions should include:

- Hire a new training coordinator position at the rank of Captain. The cost for this position would be approximately \$105,000 in salary and benefits.
- This position should develop a training program based on IFSTA "Essentials..." Fourth Edition.

- Development of quantifiable evaluation mechanisms for all aspects of the training function to measure training effectiveness and retention.

The project team also recognizes that local agencies have likely developed training programs similar to the one described by the project team. If so, there is no reason that Rural / Metro should not be encouraged to make use of this work if it is available. The sub-section, that follows, provides our analysis of the apparatus maintenance approaches used by Rural / Metro.

(2) Vehicle Maintenance Appears to Be Delivered at a High Level of Service.

The project team also examined the management and delivery of vehicle maintenance by Rural / Metro. MAXIMUS found that the service is provided at a high level with every effort made to keep emergency units in the field and in service. This includes the use of a number of roving maintenance units (these go to the stations to handle maintenance tasks) so as to eliminate the need for units to come to the central facility most of the time.

In addition, the units in the City have been placed on a routine preventive maintenance schedule (A / B) as shown, below (this is a sample of units):

Unit	Type	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.
6861	Spare Engine	PM-A			PM			PM			PM		
6862	Ladder 811	PM-A			PM			PM			PM		
6864	Engine 810	PM			PM-A			PM			PM		
6865	Spare Engine		PM-A			PM			PM-A			PM	
6866	Chem 812	PM-A			PM			PM			PM		
6867	Engine 827		PM			PM-A			PM			PM	
6969	Attack 819		PM			PM			PM			PM-A	

Unit	Type	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.
6870	Foam 812	PM-A			PM			PM			PM		
6871	Engine 815		PM-A			PM			PM			PM	
6872	HazMat 814	PM			PM			PM-A			PM		
6873	Utility 810		PM-A			PM			PM			PM	
6875	Ladder 819		PM			PM			PM		PM	PM-A	
6876	Brush 813	PM			PM			PM			PM-A		
6877	Engine 820		PM			PM			PM			PM-A	
6878	Engine 814	PM			PM			PM-A			PM		
6879	Engine 818	PM			PM			PM			PM-A		

The table, above, shows that the vehicle maintenance staff has developed a logical approach to conducting preventive maintenance. Note that the months of September, December, March and June are empty – this allows the shop to perform preventive maintenance on non-Scottsdale units that are their responsibility. The table, below, shows the result of this approach in practice:

Unit	Average Number of Months between Maintenance	Average Number of Miles between Service
6861	6.3	4,628.4
6862	5.3	4,239.5
6864	3.0	2,548.3
6865	9.0	10,935.0
6866	4.5	5,320.0
6867	3.7	4,845.3
6869	5.0	5,201.0
6870	3.0	237.0
6871	3.2	4,175.4
6872	6.0	564.5
6873	13.0	1,710.0
6875	3.5	3,764.0
6876	7.0	1,678.0
6877	4.3	10,296.7
6878	3.2	4,073.3
6879	3.0	4,609.0
Average	4.4	8,362.7

Note also that the shop makes every effort – even during those times when the units are in for major work or their preventive maintenance visit – to keep the downtime to a minimum. This is again accomplished by pre-planning whenever possible (for the particular project) and by making use of the field units whenever possible. Note also that the wide variations in the mileage between services also has to do with a number of factors: the area in which the unit works, the level of workload handled by the unit, the age / repair history of the unit, etc. It should also be noted that the project team did not attempt to differentiate between the types of service shown in that table (i.e., preventive or repair).

The table, that follows, shows the average downtime for a similar sample of units:

Unit	Number of Days to Complete Service	Hours charged
6861	1.65	2.62
6862	2.80	2.55
6864	1.75	4.12
6865	8.33	4.00
6866	5.33	7.75
6867	3.25	3.83
6870	5.20	3.20
6871	2.20	2.63
6872	1.00	1.88
6873	1.00	2.00
Average	3.25	3.46

Note that there is a delay in prosecuting these maintenance tasks – this is a fairly reasonable situation considering the seriousness of the maintenance that is being handled (pump repairs, engine repairs, transmission repairs, etc.). These maintenance tasks can take time to complete – not necessarily due to the work itself but oftentimes awaiting a part to complete the repair. The project team does not believe that any major changes are required in the delivery of vehicle maintenance services within the context of the contract.

6. **SUMMARY OF RECOMMENDATIONS FOR IMPROVING CURRENT SERVICE DELIVERY BY RURAL / METRO IN THE CITY OF SCOTTSDALE INCLUDE STATION LOCATION AND MANAGEMENT SYSTEMS.**

The City of Scottsdale should pursue several changes to the way in which operations are provided and managed by Rural / Metro is the relationship continues between the City and its contractor.

The table, that follows, provides a summary of our recommendations:

RECOMMENDATION	TIMING	COST
Make no additional changes to the station network beyond current plans to add two stations.	N/A	\$0
Bring all fire apparatus staffing to a minimum of three personnel at all times. This includes the following units: Engine 808, Engine 809, Engine 811 and Ladder 811.	Could be phased.	\$500,000
Take steps to enhance communication between the City and Rural / Metro.	Short term.	\$0
Enhance the delivery of fire service training. Add an additional staff position to coordinate in-station training, develop a formal training program (for consistent training in all stations), etc.	Short term.	\$0
Increase focus on data as a management tool.	Short term.	\$0
Re-consider the response time standards established for all areas of the City.	Short term.	\$0

The paragraphs, that follow, provide a summary of MAXIMUS's recommendations for improvement.

- **In addition to pursuing the two fire stations already planned for addition, the City should consider no additional stations unless future growth demands it.** The project team has provided an extensive analysis of the current fire service response network. The Rescue units that are deployed in conjunction (though not as part of the contract for service) with the fire units were included in this analysis. MAXIMUS has also found that the current process and plan for adding new fire stations is a rational one based on the anticipated growth pattern of the City (based on information from planning staff at the City).
- **Take steps to improve the reporting relationship and communication between the City and Rural / Metro.** The project team found that the current reporting relationships are characterized by ambiguity and apparently crossed lines of reporting (the Assistant City Manager is a peer of the Fire Chief who reports to the Emergency Services Director who reports to the Assistant City Manager and the Police Chief). The project team believes that contract administration should be handled from the Office of the City Manager, with the Emergency Services Division focusing on planning and emergency preparedness.

benefit from making improvements in several areas, including the following:

- Record keeping for all aspects of training.
 - The mechanism by which training needs are determined and then implemented.
 - Development of training priorities for the fire service.
 - Development of quantifiable measures for of successful training.
 - Increased use of alternative training media including video and the internet.
- The project team believes that the focus on data as a management tool should be expanded to include not only the reporting requirements for the City of Scottsdale contract, but should also be viewed as a tool with which the fire service can enhance its own self-management.
 - Finally, MAXIMUS believes that it is important to re-visit the response time standards set for each of the response areas in the City. The response times for the stations south of F. L. Wright Blvd. should be set at four minutes or less (there are some that are set at five minutes in this area) to reflect the urban nature of these areas.

These modifications to the current approach to providing services should all be viewed by the City of Scottsdale as opportunities to enhance service delivery by Rural / Metro in the upcoming contract negotiations.

APPENDIX

BEST PRACTICES EVALUATION OF FIRE AND EMERGENCY MEDICAL SERVICES PROVIDED IN SCOTTSDALE BY RURAL / METRO

APPENDIX

Best Practices Evaluation of Fire and Emergency Medical Services Provided in Scottsdale by Rural Metro

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Fire Station Location and Response Unit Deployment		
Fire service area coverage	<p>Locate, build, and staff fire stations to keep developed areas of the City service area within response time targets of four to six minutes for the first responding unit for emergency fire and medical calls. Assuming an average travel speed of 25 miles per hour for units responding in a "Code 3" mode (lights and sirens), maximum response distance for a station response area is then in the 1.2 to 2.0 mile range allowing one minute following dispatch for crew readiness and "roll-out" and three to five minutes for actual travel to the scene.</p>	<p>The contract performance targets for fire and emergency medical service do not establish quantitative standards related to station response areas and community coverage. Instead, as noted below, the targets set response time performance standards/expectations by station response are to reflect differences in development density and levels of built-in protection in the various areas of the community. The FLAME analysis conducted by the project team indicates that, given current station location and community configuration:</p> <ul style="list-style-type: none"> • South Scottsdale: About 56% of the portion of the City (i.e., south of Frank Lloyd Wright) is located within a 4-minute response area of a current fire station. The remainder of the area involves response times of four to six minutes (37%) and six to eight minutes (7%). Very little of this area is outside of an 8-minute response area.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Fire service area coverage (continued)		<ul style="list-style-type: none"> • North Scottsdale: This is the area which generally lies above Frank Lloyd Wright Boulevard. Of those areas which can be reached in less than eight minutes (and there are some areas which lie outside this outer response time limit), 42% can be reached in four minutes or less, another 40% can be reached in four to six minutes and 18% can be reached between six and eight minutes. <p>Not all areas of the north end of Scottsdale can be reached in eight minutes or less from the current configuration of fire stations and units. ”</p> <p>Overall, the FLAME map analysis indicates that much of the City is located beyond the four minute and six minute response time coverage limits generally associated with comprehensive fire unit response time coverage.</p>

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
<p>Response Time to Structure Fire – First In Unit</p>	<p>Four to six minute response time for first responding unit for 80% to 90% of structure fire calls.</p> <p>Response time targets are directly related to designing a fire protection system which can attack structure fires prior to “flashover” – that point when all of the combustibles in a confined area will ignite simultaneously as a result of temperature increase in a fire. Flashover normally occurs between 6-1/2 to 10 minutes after ignition with structural damage increasing as the fire grows in a more or less geometric progression. Response time targets can be modified based on built-in protection such as sprinkle ring which can control fire spread and temperature if activated.</p>	<p>The contract establishes different first-in unit response time standards for the various areas of the City which reflect level of sprinklering/ built-in protection and development/population density in those areas. Targets range from 90% of calls within 4 minutes or less for the Station 810 and 811 response areas; 90% of calls within 5 minutes or less for the Station 812, 813, 814, and 815 response areas; and 90% of calls within 7 minutes for the Station 818 and 819 response areas. In general, considering built-in protection in the more newly developed areas, current targets are consistent with national standards and research results involving efficacy of fire response and fire suppression capabilities of first in units.</p>
<p>Engine and Aerial Company Staffing</p>	<p>Three people assigned as minimum staffing for both engine and aerial operations. In some circumstances, this staffing can be adjusted where multiple units are dispatched as a company to a fire or other incident.</p> <p>Three person engine / aerial company staffing has been shown to be the minimum level at which any engine or aerial can effectively perform basic operations without additional assistance from other units and without significant decline in their ability to provide service.</p>	<p>Currently the City of Scottsdale is served by four units that are staffed with two firefighters: Engine 808, Engine 809 (goes to 3 in the evenings with the addition of a deputy fire marshal), Engine 811 and Ladder 811.</p>

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
<p>Response Time to Structure Fire -- Full Structure Fire Response Including Personnel and Apparatus Response to a Structure Fire</p>	<p>Deliver a minimum of four units (two engines, a rescue and a truck) with at least twelve personnel with a response time for all responding units of 12 minutes.</p> <p>Response times for additional units (engines and trucks) is also important since the speed with which additional staff resources can be delivered to the fire scene to accomplish fire control and suppression activities impacts total ability to control fire spread.</p> <p>Effectiveness standards generally involve the following related to the above:</p> <ul style="list-style-type: none"> • Delivering a full structure fire response to the fire scene within 8 to 12 minutes of receipt of report of the incident at the communications center. 	<p>The contract sets performance targets for a full structure fire response which establish fire flow targets and total responding personnel for a structure fire response by station response area (reflecting differences in development, density, and levels of built-in protection across the City) as follows:</p> <ul style="list-style-type: none"> • Twelve personnel and a Battalion Chief for a structure fire in the Station 810 and 811 response areas. • Nine personnel and a Battalion Chief for a structure fire in other Station response areas. <p>These standards are generally consistent with industry standards/best practices.</p>

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale														
<p>Response Time to Structure Fire – Full Structure Fire Response Including Personnel and Apparatus Response to a Structure Fire (continued)</p>	<ul style="list-style-type: none"> This involves the first in engine company within four to six minutes; a second engine within 6 to 8 minutes; and a truck company within 8 to 12 minutes. 	<p>Units are currently staffed, deployed, and dispatched to provide a response capability consistent with these targets and industry standards/best practices.</p> <p>Contract performance targets do not specify response and arrival at the scene time targets for additional responding units in a structure fire situation. Furthermore, available data did not support analysis of actual arrival performance compared to targets and standards for the full structure fire response. The FLAME analysis also evaluated station and response time coverage for a full structure fire response. The map analysis evaluated station coverage from the perspective of providing a 12 person response City-wide within eight minutes and twelve minutes. Findings were as follows:</p> <table border="1"> <thead> <tr> <th colspan="3">Percent of Area</th></tr> <tr> <th rowspan="2">Response Area</th><th colspan="2">Full Response</th></tr> <tr> <th>Within 8 Minutes</th><th>Within 12 Minutes</th></tr> </thead> <tbody> <tr> <td>South</td><td>61 %</td><td>93 %</td></tr> <tr> <td>North</td><td>0 %</td><td>42 %</td></tr> </tbody> </table>	Percent of Area			Response Area	Full Response		Within 8 Minutes	Within 12 Minutes	South	61 %	93 %	North	0 %	42 %
Percent of Area																
Response Area	Full Response															
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CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Response Time to Structure Fire – Full Structure Fire Response Including Personnel and Apparatus Response to a Structure Fire (continued)		From the map analysis perspective, the current station network is not configured nor units deployed to provide a full structure fire response within the 8 to 12 minute range associated with industry standard best practice (in all areas of the City).
Command System for Major Fire and Emergency Incidents	Battalion command staff and company officers trained in Incident Command System (ICS) or comparable approach for structuring and exercising command and supervision at the fire or emergency incident scene. Includes periodic conduct of training exercises in ICS including incident simulation.	Rural/Metro participates as a member of the Regional Operating Consistency Committee which has developed a uniform incident command system similar to ICS. Battalion Chiefs and Captains have been trained in the command system adopted as a regional standard and follow this approach during incidents (confirmed by listening to radio calls). Consistent with best practices.
Emergency Medical Services		
Response Capability for Emergency Medical Incidents	Major trend across the United States to expedite ALS response by training and certifying engine company personnel as Fire Fighter/Paramedics and providing ALS capabilities on first-in engine company response units.	Rural/Metro provides a two tiered response to emergency medical calls which includes an initial response by the closest engine company, each of which is staffed with at least one Firefighter/Paramedic who is trained to provide ALS level services, and a rescue ambulance staffed with a Firefighter EMT and a Firefighter Paramedic. Current approach in Scottsdale meets and exceeds best practices.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale												
Response Times for Life Threatening Emergency Medical Incidents	<p>Response times for emergency medical calls for service as follows: (1) BLS (basic life support) response within 4-5 minutes for 80%-90% of calls; and (2) ALS (advanced life support) response within 6-8 minutes for 80%-90% of calls. ALS response/service within 8 minutes has been determined by the American Heart Association to significantly increase survivability of heart attack victims.</p>	<p>The fire service contract with Rural/Metro provides for the following response time targets for emergency medical incidents: (1) Have an ALS capability on scene within the following parameters -- Targets range from 90% of calls within 4 minutes or less for the Station 810 and 811 response areas; 90% of calls within 5 minutes or less for the Station 812, 813, 814, and 815 response areas; and 90% of calls within 7 minutes for the Station 818 and 819 response areas; (2) Have a second ALS capability unit on scene within 8 minutes; and (3) One of the ALS units must be a transport unit. Based on review of actual response time performance for the period July 1, 2000 through June 30, 2001, actual response time for first in units was as shown below compared to targets.</p> <table border="1"> <thead> <tr> <th data-bbox="954 814 1019 919">Station (90%)</th><th data-bbox="922 646 987 751">Response Time Target</th><th data-bbox="922 310 987 415">Actual Performance</th></tr> </thead> <tbody> <tr> <td data-bbox="1052 856 1117 919">810 min</td><td data-bbox="1052 604 1117 751">90% w/in 4 Minutes</td><td data-bbox="1052 268 1117 415">2.85 / 4.02 4 min / 5 min</td></tr> <tr> <td data-bbox="1149 856 1214 919">811 min</td><td data-bbox="1149 604 1214 751">90% w/in 4 Minutes</td><td data-bbox="1149 268 1214 415">3.48 / 3.50 4 min / 5 min</td></tr> <tr> <td data-bbox="1247 856 1312 919">812 min</td><td data-bbox="1247 604 1312 751">90% w/in 5 Minutes</td><td data-bbox="1247 268 1312 415">4.88 / 5.55 5 min / 7 min</td></tr> </tbody> </table>	Station (90%)	Response Time Target	Actual Performance	810 min	90% w/in 4 Minutes	2.85 / 4.02 4 min / 5 min	811 min	90% w/in 4 Minutes	3.48 / 3.50 4 min / 5 min	812 min	90% w/in 5 Minutes	4.88 / 5.55 5 min / 7 min
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CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale		
Response Times for Life Threatening Emergency Medical Incidents (continued)		<u>Station (90%)</u>	<u>Response Time Target</u>	<u>Actual Performance</u>
		813	90% w/in 5 Minutes	3.52 min
		814	90% w/in 5 Minutes	2.83 min
		815	90% w/in 5 Minutes	3.25 min
		816	None Specified In Contract	4.83 min
		818	90% w/in 7 Minutes	6.32 min
		819	90% w/in 5 Minutes	4.25 min
		820	None Specified In Contract	6.73 min
		The data shown above indicate that actual response performance for first in units is well within the standards set by the contract between Rural Metro and the City of Scottsdale.		

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Support "Self-Help" Emergency Medical Service Programs	Implement and support citizen "self-help" programs in the emergency medical services area such as locating defibrillators in high risk areas and providing CPR training to community residents and businesses.	Rural/Metro has located defibrillators at some convalescent homes in the community and trained care personnel in their use. Rural/Metro also provides CPR classes throughout the community on a monthly basis and over the period July, 1999 through May, 2001 certified an average of 22 persons monthly in CPR.
Apparatus Replacement and Renewal and Maintenance		
First line apparatus life cycle.	Remove engines from first line status after twelve years' service and trucks after fifteen years.	Current practice is in transition since the City of Scottsdale is now in a program to own apparatus versus the previous approach under which Rural/Metro purchased and owned apparatus and depreciated apparatus cost as part of annual contract charges. Review of the first line apparatus currently deployed indicates that all engines and trucks are newer than the replacement targets indicated by best practice.
Apparatus Maintenance	Clearly established/defined maintenance schedule and tasks for accomplishment by company level personnel.	The maintenance personnel have provided each company / station with clear guidelines for performing vehicle checks and for performing basic tasks themselves. Rural Metro also makes available mobile units to provide maintenance in the field (to reduce travel and down time for emergency units). The project team does not recommend that the City take over vehicle maintenance of fire units unless the contract with Rural / Metro is terminated due to the special nature of the skills required to maintain pumps and other special equipment.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Dispatch and Communications		
Hardware and Software	<p>Computer Aided Dispatch(CAD) with automated geo-files and "run maps"/ protocols for use by the fire communications center.</p> <p>On-board terminals in first response apparatus to provide visual display of dispatch/response instructions and print-out capability for run map/incident location.</p>	<p>Rural/Metro fire communication/dispatch center equipped with CAD system consistent with best practices.</p> <p>Response vehicles are equipped with radios only and do not have computer (CRT) or visual display terminals (VDT). Battalion Chiefs also have no access to CRT's or VDT's in their vehicles. Response unit notification by tone out and pager with instructions provided by radio.</p> <p>As noted above, Battalion Chiefs do not have computer terminals in vehicles. All information related to response (e.g. units dispatched and projected arrival sequence) provided verbally over radio by dispatchers.</p> <p>Current access of Battalion Chiefs and response units to automated incident, run, and other information and approaches for providing that information not consistent with best practices.</p>

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Emergency Medical Dispatch	Dispatcher access to and training in soliciting information related to the emergency medical incident and providing pre-arrival instructions to responding fire and EMS units. Includes use of one of the systems (e.g. Clausen System) which provides structured questions and related instructions for dispatchers to use in soliciting information and providing pre-arrival instructions to responding units.	Rural/Metro currently employs the Clausen system to develop information and provide pre-arrival instructions for responders to emergency medical calls. Currently evaluating potential to develop proprietary system as an alternative. Consistent with best practice.
Inter-agency communications compatibility	Response units and field incident commanders can communicate directly with other fire agencies in the event of mutual aid incidents, and with other public safety units like police officers.	Currently, the communications system utilized by Rural/Metro does not provide for direct communication by units in the field to Scottsdale police officers. The Scottsdale Police Department utilizes an 800 MHz system which is incompatible with the Rural/Metro system. To the extent that communication is required on emergency incidents, information is required to Rural/Metro dispatchers, then to the Scottsdale PD via land line, and then relayed by Police Department dispatchers to police officers in the field. Phoenix Fire Department is also implementing an 800 MHz system which will also make communications between field units of Rural/Metro and Phoenix on mutual aid calls impossible. Not consistent with best practice.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Fire Prevention and Inspection		
New Construction Plan Check and Inspection	<p>Dedicated fire specialists to review and analyze new construction/remodeling plans for conformance with the Fire Code and the City's fire protection related codes and ordinances.</p> <p>Field inspection of new construction and required fire systems by trained fire specialists integrated with other construction inspections and successful completion required before issuance of occupancy permit.</p>	<p>Rural/Metro provides dedicated fire prevention specialists who work as integral components of Scottsdale's development review process. All required plans checked by specialists.</p> <p>Fire prevention specialists conduct all new construction inspections and the City requires completion of a successful inspection before a Certificate of Occupancy is issued.</p> <p>Consistent with best practice.</p>
Codes and Ordinances	Adopt and maintain most current version of the Uniform Fire Code.	<p>The City adopts the most current version of the Uniform Fire Code (UFC), and as noted below, has additional ordinances which require built-in protection with more stringent requirements than most jurisdictions.</p> <p>Consistent with and generally exceeds best practice.</p>
Built-In Protection Requirements	Require sprinklering in all new commercial/industrial occupancies and residential units. Retrofit required for commercial/industrial remodels exceeding 50% of value	<p>Ordinances dealing with built-in protection significantly exceed industry standards and best practices:</p> <ul style="list-style-type: none"> • All new residential construction must be sprinklered (requirement in place since 1986).

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Built-In Protection Requirements (continued)		<ul style="list-style-type: none"> • All new commercial and industrial building must be sprinklered, and sprinkler systems are required to be installed/retrofitted in all commercial and industrial buildings which are remodeled. • Residential structures being re-modeled with the remodel effecting 25% of the structure must also be retrofitted with sprinkler systems.
Coordination with Other Municipal Planning and Land Use Control Units	<p>Fire prevention specialists located and work in conjunction with other development review staff to provide customer convenience for applications and application instructions.</p> <p>Fire prevention staff participate as member(s) of application review teams and pre-application conferences for major projects to ensure fire safety considerations addressed for all major projects.</p>	<p>Rural/Metro fire prevention staff are stationed at the Scottsdale Development Review center and are co-located with the City's other development review staff.</p> <p>Rural/Metro fire prevention staff participate as integral members of various pre-application review committees established by the City, and fire prevention staff are fully integrated into the development review and permit processes of the City.</p> <p>Consistent with best practices.</p>
Hazard Inspection and Code Enforcement	<p>At minimum, annual inspection of high risk occupancies by specialist fire inspectors.</p> <p>Scheduled annual fire safety inspections of all risk commercial/industrial occupancies by engine/ truck companies. Central coordination by fire prevention staff to ensure engine/truck company inspections are completed at least annually.</p>	<p>The Rural/Metro fire prevention unit which serves Scottsdale has designed and implemented a comprehensive safety inspection code enforcement program which provides for annual inspections of all high hazard and complex occupancies by fire prevention specialists on an annual basis.</p>

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Hazard Inspection and Code Enforcement (continued)		<p>Lower risk occupancies inspected annually by engine companies.</p> <p>Fire prevention staff monitor completion of required inspections by specialists and engine companies.</p> <p>Consistent with best practices.</p>
Training and Staff Development		
In-Service training for fire suppression and emergency medical services staff	<p>Structured in-service training program for fire suppression staff assigned to response units to include the following:</p> <ul style="list-style-type: none"> • Annual training schedule clearly outlining training expectations by subject and hours devoted to each. • Documented performance standards to be met by response personnel by position and type of unit to provide a basis for company training and proficiency assessment. • Central monitoring of actual training provided and completed by companies to include centrally maintained training records to document training provided and completed by all staff. 	<p>Current training approaches/requirements employed by Rural/Metro compare to the best practices noted at left as follows:</p> <ul style="list-style-type: none"> • Currently, central training staff available to develop and manage training programs for fire personnel is limited to one District Chief who is assigned to the Resource Management Unit. This position defines annual training expectations which need to be met by company captains in terms of general areas to be covered and number of training hours which are to be completed. While training hours are reported to and tracked by the Resource Management Unit, hours completed by subject/topic for each company are not reported nor tracked by the

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
<p>In-Service training for fire suppression and emergency medical services staff (continued)</p>	<ul style="list-style-type: none"> Annual proficiency testing of fire fighters compared to documented and established performance standards. 	<p>Resource Management Unit. As a result, there is little central/control of training focus, content, and quality actually conducted at the company level with the exception that training and certifications involving safety (e.g. blood borne pathogens) and emergency medical service qualifications are now tracked by subject and employee by the OSHA compliance officer. Based on the above, the basis for training continuity between and among companies are the IFSTA manuals which are employed by the Department, and provided to each company as the basis for skills maintenance.</p> <ul style="list-style-type: none"> While company performance standards are documented, there is no current process to uniformly measure competency and performance against these standards, nor any central control to ensure that companies are training to these standards on a uniform basis. <p>Some steps have been taken to upgrade in-service training through establishment of a Labor - Management Committee which has been tasked with identifying specific training topics and based on committee recommendations, providing special training topics on quarterly basis which are available to all companies. Topics are presented two times per week for a three month period and company officers are responsible for having their companies attend. There are indications that some staff cannot attend these special topics because of assignment to high demand response units.</p>

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
In-Service training for fire suppression and emergency medical services staff (continued)		<p>Overall, the in-service training program should be viewed as minimal and the absence of central control to ensure consistency across the companies and battalions as well as limited resources available to plan and monitor training should be viewed as a weakness.</p> <p>Not consistent with best practices.</p>
Unit proficiency testing	At minimum, semi-annual multi-company drills and proficiency testing in fire ground techniques/performance.	Battalion Chiefs currently conduct multi-company drills during most days and during the non-summer months. These drills are conducted at least twice quarterly for each company. While frequency of the multi-company drills is consistent with and in fact exceeds best practices, there is no formal proficiency testing of companies, either individually or in multi-company settings, and this is inconsistent with best practices.
Dedicated training staff for program management and development	<p>Sufficient dedicated staff to develop, distribute, and ensure compliance with annual (or more frequent master training schedule. Also, central maintenance/monitoring of training records.</p> <p>Provision of training videos and other self-teaching materials for use in station level training.</p>	<p>There is no formal management or supervisory development program currently in place.</p> <p>With the exception of the special quarterly topics identified by the Labor Management Committee, there are no special training materials acquired or prepared centrally and made available to the stations to support company training.</p>

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Dedicated training staff for program management and development (continued)		Not consistent with best practices.
Reserve or comparable program to train, qualify and attract fire fighters.	Formal program to provide opportunities for reserve or other fire fighters from whom full-time staff can be recruited.	Rural/Metro operates a significant reserve program with about 80 reserves for the Maricopa County fire operation of which about 40 are involved in the Scottsdale and Paradise Valley fire service system. Reserves are required to achieve Firefighter II/EMT qualification and meet the basic company performance standards before they are used to work shifts. Shift Captains are assigned responsibility for coordinating a specified number of reserves (about 20 each) including arranging for and providing for in-service training for reserves and ensuring new reserves meet minimum company performance standards. Consistent with best practice.
Management and Organization		
Line command span of control	Battalion Chief span of control in six to eight station range.	The Scottsdale service area is structured into two battalions with battalion chiefs overseeing Scottsdale stations and some stations on the Scottsdale periphery including Station 828 (Paradise Valley); 821 (Cave Creek); 825 (Rio Verde); and 840 (Del Webb - Anthem). The spans of control of the north and south battalion chiefs (as measured by the number of stations supervised) are as follows:

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Fire and Emergency Medical Services Component	Best Practice	Current Approach in Scottsdale
Line command span of control (continued)		<ul style="list-style-type: none"> • South Battalion Chief: 1:7 span of control. • North Battalion Chief: 1:7 span of control. <p>At these levels, Battalion Chief spans of control are within the effectiveness ranges associated with industry standards for best practice.</p>
Levels of management	Organization "flattened" to reduce levels of management involved in direct service delivery.	<p>Because of the Rural/Metro system for serving Scottsdale as part of the Maricopa County fire service delivery system, levels of management and the number of dedicated management and administrative positions devoted to managing the fire service system are modest. Based on information contained in the Profile, Scottsdale pays for the equivalent of 5.8 management positions (Battalion Chief through County Fire Chief). A comparably sized municipal fire department in the Western United States would staff a minimum of 10 management positions from Battalion Chief through Chief of the Department.</p> <p>Consistent with cost-effective practice and in line with current approaches to flattening municipal organizations.</p>

ATTACHMENT A

PROFILE OF THE FIRE AND EMS SYSTEMS IN THE CITY OF SCOTTSDALE

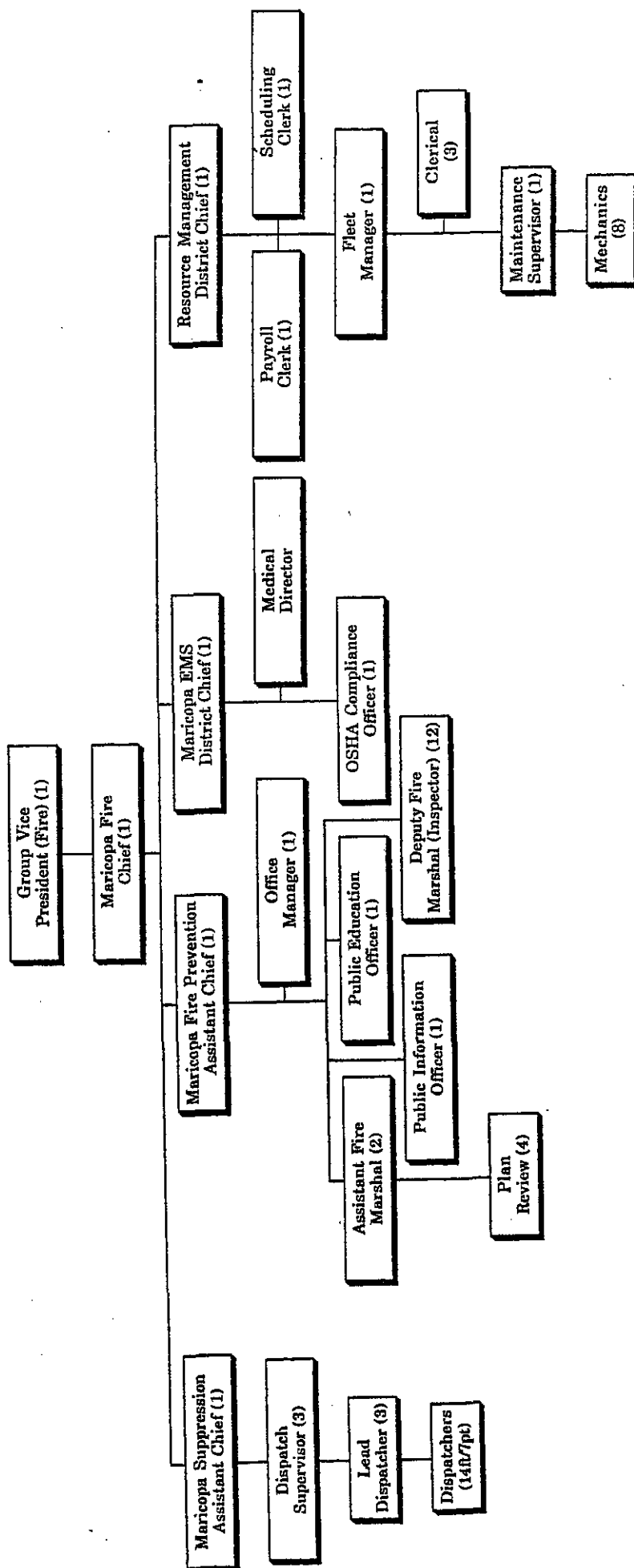
The report which follows describes the organization; service delivery structure; and financial structure of the current fire and emergency medical services system in Scottsdale. Information contained in the report has been developed based on interviews with personnel from the City of Scottsdale and the Rural/Metro Corporation, as well as review of various reports and other operating documents. The information contained in this report need to be reviewed for accuracy by City and Rural/Metro staff. This Profile provided the basis for analysis in subsequent stages of the project.

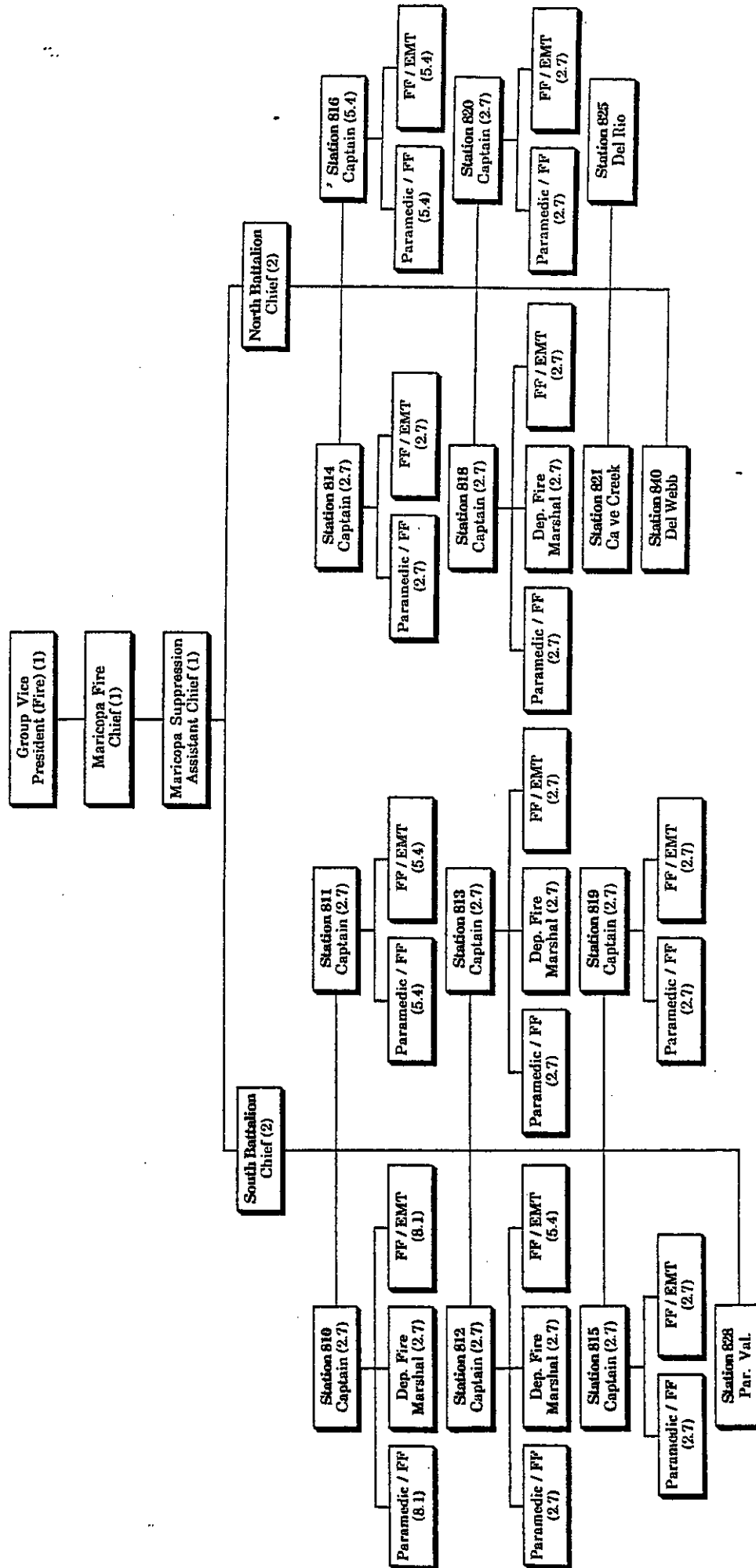
The Profile opens with a summary of how the current fire and emergency medical services system is organized and staffed.

1. ORGANIZATION AND STAFFING OF THE FIRE AND EMERGENCY MEDICAL SERVICES SYSTEM IN SCOTTSDALE.

The current fire and emergency medical services system in Scottsdale consists of the following major components:

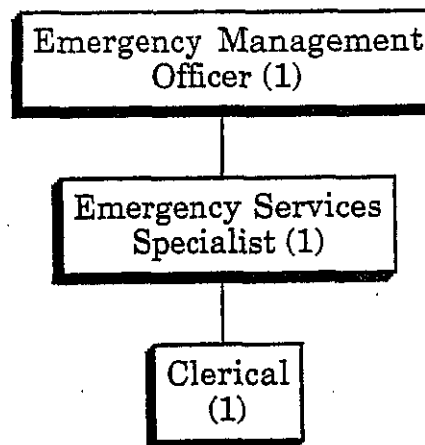
- The City of Scottsdale provides contract management and oversight through staff assigned to the Scottsdale Police Department, and also directly financially supports the Fire Support Group which is comprised of City employees who are trained as support fire fighters and are available to provide on-scene support to Rural/Metro fire and emergency medical services personnel at major incidents.
- The Rural/Metro Corporation provides fire suppression, fire prevention, and emergency medical services in Scottsdale:
 - Fire suppression and fire prevention services are provided under contract with the City of Scottsdale and fire response units and fire prevention services are staffed with Rural/Metro employees. Rural/Metro also provides management and administrative support for fire suppression and fire prevention services.
 - Emergency medical services, including emergency ambulance response and emergency and some non-emergency transport, are provided Rural/Metro personnel who are assigned to and operate from Scottsdale fire stations. The ambulance response and transport service is not funded by the fire service contract between Scottsdale and Rural/Metro, and revenue supported based on service fees and subscriptions collected by Rural/Metro.





**Current Organization of the
Emergency Management
Office**

**CITY OF SCOTTSDALE,
ARIZONA**



Rural/Metro fire services provided in Scottsdale are managed by and part of Rural/Metro's Fire Integrated Response Group which has overall responsibility for managing the company's fire service operations in both the Maricopa County areas as well as elsewhere across the United States.

The matrices which follow describe how the City and Rural/Metro fire and emergency medical services components are organized and staffed and also summarize the major responsibilities and operating/service characteristics of each organization unit and position relevant to the Scottsdale – Rural/Metro contract. The first matrix which follows provides an overview of the City of Scottsdale staff involved in managing the contract and delivering fire services.

Position	Number of Positions	Responsibilities
Emergency Services		
Emergency Services Director	1	Coordinates and manages the contact between the City of Scottsdale and Rural Metro. This includes day to day interaction with Rural Metro on issues such as procurement, service level performance, major incident response and other issues. The EMO also has some interaction with the Police Department and coordinates between the two service providers. While the EMO and staff receive data from Rural Metro as part of the agreement (on a monthly basis) there is a limit to what can be requested. The EMO has no direct oversight or input into the budget request submitted by Rural Metro to the City, except as directed by the City management. The EMO will respond to major incidents to serve as a liaison between Rural Metro and other City services if needed.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions	Responsibilities
Emergency Services		
Emergency Services Specialist	1	Provides assistance to the EMO. The ESS is expected to conduct the in-depth review of all submissions by Rural Metro to the City. This includes investigating the reasons behind an incidents which appear on the exception reports (for slow response, etc.) or for moving equipment out of Scottsdale. The ESS is also expected to track Rural Metro's performance versus the other performance standards set forth in their contract with the City. This position is also expected to respond to major incidents to serve in a liaison capacity between the City and Rural Metro.
Clerical	1	General support to both the Emergency Management Officer and the Emergency Services Specialist.

The next matrix describes Rural/Metro staff involved in managing and delivering fire and emergency medical services in Scottsdale. The matrix also provides an estimate, based on interviews, of the time involved in managing or delivering Scottsdale related services for all personnel.

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Corporate Administration			
Group VP, Fire Integrated Response Group	1	15%	Manages Rural/Metro's fire service operations nationwide. Maricopa County and Scottsdale contract just a portion of operations included within the Group which also includes fire service contracts in Oregon; Yuma and Pima Counties in Arizona; and "specialty" fire protection operations elsewhere in the United States and internationally including industrial fire protection contracts. Responsible for financial management of the group including the Scottsdale contract; and negotiation of the Scottsdale contract through subordinate Maricopa County fire service managers.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		
Executive Assistant	1	20%	Provides administrative and clerical support to the Integrated Response Group VP and Maricopa County fire services managers.
Fire and EMS Management			
Fire Chief	1	65%	Overall management responsibility for fire services provide in Maricopa County by Rural/Metro. Includes the Scottsdale contract, as well as contract/subsription supported fire services elsewhere in Maricopa County including County unincorporated area, Paradise Valley, Carefree, Cave Creek, and Rio Verde in the central valley; and services provides to Queens Creek and the unincorporated area in the east valley and Litchfield Park min the west valley. Reports to the Group VP and has principal responsibility for managing Rural/Metro's fire service contracts in Maricopa County including contract negotiation; liaison and service coordination with client agencies; and overall management of fire protection programs and services.
Asst. Chief, Fire Suppression	1	75%	Reports to the County Fire Chief and has direct, lead responsibility for management of fire suppression and response operations throughout the valley. Directly oversees four battalions (2 Scottsdale, 1 East Maricopa County, West Maricopa County) and 3 District Chiefs (Paradise Valley and Resource Management/Training, EMS), and the fire communications unit of Rural/Metro. In conjunction with the County Fire Chief and the Assistant Chief - Fire Prevention, manages and coordinates Scottsdale contract fire service. Develops and proposes fire suppression programs and needs; works with customer agencies to fund and implement programs; and coordinates services between and among Rural/Metro and client agencies. Manages fire suppression staff including handling personnel matters and resolving issues with the fire fighters' association.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

	Total	Percent Allocated to Scottsdale	Responsibilities
Asst. Chief, Fire Prevention	1	85%	Oversee Maricopa Fire Division fire prevention programs including staff assigned/dedicated to Scottsdale. Coordinates preparation and adoption of fire related ordinance(s) with client agencies; monitors inspection and prevention program performance compared to contract requirements; and works with assigned staff and City's contract administrator to identify and develop prevention programs and targets. Acts as Fire Marshal for Scottsdale.
Fire Suppression Operations			
<p>Fire Suppression Staffing and Deployment: Scottsdale stations and fire suppression forces are organized into two battalions (north and south) with each battalion divided into two "shifts," each commanded by a battalion chief. Each shift is comprised of captains, fire fighters, and fire fighter paramedics who are assigned to specific stations and companies, and a "pool" of captains, fire fighters, and paramedics who provide coverage when the primary assigned staff are unavailable due to vacation, sick leave, and the "Kelly Day Off" inherent in the current average 62 hours per week work schedule. The personnel allocations to stations shown below are based on the 2.7 coverage factor which represents the number of positions required to staff each fixed post/ company assignment on a 24 hour per day, seven day per week basis. This factor includes the number of positions required to staff each of the two shifts, and the positions allocated to the "pool" to provide "Kelly Day" and other time-off coverage.</p> <p>As will be noted below, many of the Scottsdale stations are assigned ambulance/rescue units. These units are funded through Rural/Metro's ambulance program and are not included in Scottsdale contract costs/charges. These units are staffed from the pool of personnel assigned to each shift, and respond to fire calls when required. Because personnel are trained as fire fighters and fire fighter paramedics, they are used interchangeably with engine and truck company personnel at the fire scene, when required.</p>			

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Battalion Chiefs, Scottsdale	4	80% - estimated based on allocation of suppression personnel to Scottsdale and "non-Scottsdale" stations	<p>The Scottsdale fire suppression service delivery system is organized into two battalions as follows:</p> <ul style="list-style-type: none"> • The South Battalion is assigned two shift battalion chiefs who oversee stations 810, 811, 812, 813, 815, and 819 in Scottsdale in station 828 located in Paradise Valley. • The North Battalion is assigned two shift battalion chiefs who oversee stations 814, 816, 818, and 820 in Scottsdale, and stations 821 (Cave Creek), 825 (Rio Verde), and 840 (Del Webb - Anthem). <p>As can be noted from the above, each of the two battalions include stations/units located in Scottsdale, and stations/units assigned to stations outside City boundaries. In addition to the above: (1) staff resources will be added for a new engine company for station 817 (McDowell Mountain Ranch) in January, 2002, and the new station will be constructed in about 18 months; and (2) Station 27 will be built and opened in about 18 months and staffed with the second engine company currently located at station 816.</p> <p>Battalion chiefs oversee all activities on their shift including staff scheduling and assignments; maintaining required staffing/manning levels; responding to emergency incidents on multiple unit responses to provide on-scene command; and coordinate/ensure multi-unit training activities are completed as scheduled/ planned. This includes stations/staffs assigned to Scottsdale located stations as well as the "external" stations located outside City boundaries as noted above. When Battalion chiefs are on vacation or sick leave, one of the Station Captains is upgraded to serve as Battalion Chief in an acting capacity.</p>

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Station 810			
Suppression			
Captains	2.7	100%	South battalion headquarters, multi-company station. Includes the following response units:
Paramedic/FF	8.1	100%	
FF/EMT	8.1	100%	
Deputy Fire Marshal	2.7	100%	
EMS			
Paramedic/FF		N/A	<ul style="list-style-type: none"> One engine company (810), staffed with a Captain, paramedic/fire fighter, and fire fighter.
FF/EMT		N/A	
			<ul style="list-style-type: none"> One engine (808) staffed with a paramedic firefighter and a firefighter. One engine company (809) staffed with paramedic firefighter and a firefighter, and during the evening hours (post 1700) a deputy fire marshal. Two rescue/ambulance units, each staffed with a paramedic/fire fighter and a fire fighter. <p>At station 810, as well as the other stations to which they are assigned, Deputy Fire Marshals conduct prevention inspections during the day, and during the evening hours, are assigned to an engine company with same responsibilities as a fire fighter. Deputy Fire Marshals work the same 62 hour week as other suppression/emergency response staff; report administratively to the Fire Prevention unit and chain of command; and when assigned to the engine company, are under the supervision of the station captain.</p>

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Station 811			
Suppression			
Captains	2.7	100%	Units deployed at Station 811 include: <ul style="list-style-type: none"> • One ladder/truck company (ladder 811) with three personnel including a captain, paramedic/fire fighter, and a fire fighter. • One engine company (811) with two personnel (paramedic/fire fighter and a fire fighter). • One rescue/ambulance unit assigned a paramedic/fire fighter and a fire fighter.
Paramedic/FF	5.4	100%	
FF/EMT	5.4	100%	
EMS			
Paramedic/FF	2.7	N/A	
FF/EMT	2.7	N/A	
Station 812			
Captains	2.7	100%	Station 812 is assigned to the Scottsdale Airport and has dual responsibility for responding to aircraft incidents/accidents. and responding to other fire and emergency medical calls in the station's response area. Assigned units include:
Paramedic/FF	2.7	100%	
FF/EMT	5.4	100%	
Deputy Fire Marshal	2.7	100%	
Station 812 (continued)			<ul style="list-style-type: none"> • One engine (812) staffed with a captain, paramedic/fire fighter, and fire fighter. • A foam unit (812) staffed with a fire fighter and deployed for aircraft incident fire suppression. • One deputy fire marshal whose principal inspection responsibility is the Air Park; is assigned to staff the Chem Unit (812) in the event of an incident; and is assigned to either the Chem Unit or the Engine as a fourth member after 1700.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Station 813			Station 813 is co-located with the Police Headquarters. Assigned are:
Suppression			
Captains	2.7	100%	
Paramedic/FF	2.7	100%	• A truck company (813) staffed with a captain, paramedic/fire fighter, fire fighter, and after 1700, a deputy fire marshal.
FF/EMT	2.7	100%	
Deputy Fire Marshal	2.7	100%	
EMS			
Paramedic/FF	2.7	N/A	• One rescue/ambulance unit assigned a paramedic/fire fighter and a fire fighter.
FF/EMT	2.7	N/A	
			It should be noted that the apparatus assigned to Station 813 will be changed from a 55' Tele-Squirt to a 75' ladder truck. When the new equipment is received, the ladder/truck company will be inter-changed with the engine company currently assigned to Station 819.
Station 814			Station 814 is also assigned HazMat unit (814) which is not staffed on a dedicated basis. Staffed units are:
Suppression			
Captains	2.7	100%	• Engine 814 staffed with a captain, paramedic/fire fighter, and fire fighter.
Paramedic/FF	2.7	100%	
FF/EMT	2.7	100%	
EMS			
Paramedic/FF	2.7	N/A	• One rescue/ambulance unit assigned a paramedic/fire fighter and a fire fighter.
FF/EMT	2.7	N/A	
			Rural/Metro maintains about 30 HazMat and/or technical response trained responders in the Scottsdale fire suppression force, and these staff are dispatched to HazMat incidents as required. Scheduling attempts to assign from 3 to 5 of these personnel to Station 814 on each shift so that they are available to respond with the HazMat unit as required.
Station 815			
Captains	2.7	100%	One engine company (815) staffed with a captain, paramedic/firefighter and a firefighter.
Paramedic/FF	2.7	100%	
FF/EMT	2.7	100%	

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Station 816			
Captains	5.4	100%	Two engine companies (816 and 827) , each staffed with paramedic firefighter and a firefighter. Engine 827 will be relocated to the new station 27 when construction is complete.
Paramedic/FF	5.4	100%	
FF/EMT	5.4	100%	
Station 818			
Captains	2.7	100%	One engine company (818) staffed with a captain, paramedic firefighter and a firefighter, and during the evening hours (post 1700) a deputy fire marshal.
Paramedic/FF	2.7	100%	
FF/EMT	2.7	100%	
Deputy Fire Marshal	2.7	100%	
Station 819			
Suppression			In addition to fire suppression and emergency response units, Station 819 houses Rural/Metro's SORT (technical response) units (801 and 802). As with the HazMat units previously described, some personnel from throughout the suppression force are SORT trained, and respond with the equipment as available and required. The Department attempts to assign from 3 to 5 SORT trained personnel to Station 819 on each shift to provide an immediate response capability.
Captains	2.7	100%	
Paramedic/FF	2.7	100%	
FF/EMT	2.7	100%	
EMS			
Paramedic/FF	2.7	N/A	In addition to the above, the basic response units assigned to Station 819 are:
FF/EMT	2.7	N/A	
			<ul style="list-style-type: none"> • Engine 819 staffed with a captain, paramedic/fire fighter, and fire fighter. • One rescue/ambulance unit assigned a paramedic/fire fighter and a fire fighter.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Station 820			
Captains	2.7	100%	One engine company (815) staffed with a captain, paramedic/firefighter and a firefighter. Additionally, during periods of high fire risk, this station is assigned seasonal fire fighting personnel to staff and deploy the brush truck that is also located at this station.
Paramedic/FF	2.7	100%	
FF/EMT	2.7	100%	
Station 827	N/A	N/A	Planned for construction with potential completion within 18 months. Once completed, Engine 827, currently deployed from/at station 816, will be redeployed to station 827.
EMS Management and Coordination			
District Chief	1	75%	The District Chief supervises all fire-based EMS service delivery in Maricopa County. This includes the service provided by EMT Basic and Paramedic personnel. This does not include direct supervision over the non-fire based personnel (though in Scottsdale this line can become blurred due to the dynamic-assignment of personnel). The District Chief for EMS serves as a liaison between Rural Metro and the hospitals, the medical director, the state and other institutions. This includes oversight of the quality control program in the Fire Department, oversight of the controlled substance program in the Department and other aspects of EMS management.
Medical Director	1	60%	The Medical Control physician supports the delivery of EMS services in Maricopa County. This is done through work with both of the primary hospitals used by the staff in Scottsdale (in fact, doctors move between both facilities on a regular basis).

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
OSHA Compliance Officer	1	60%	This position was created (in part) due to the department's reaction to an OSHA audit that found several major deficiencies. This position is focused on ensuring that Rural Metro pursues work place safety issues – both general and those specific to the fire / EMS services. This includes fit testing masks, ensuring proper vaccinations for exposure to a variety of diseases and other issues. While this position has been in a somewhat reactive mode there are plans to be more proactive – by evaluating work place risks and hazards and developing plans to mitigate those risks.
Fire Prevention			
Office Manager	1	100%	Provides administrative and clerical support to the fire prevention unit including scheduling/assigning company and fire prevention inspections; data entry; and other administrative support tasks.
Clerical Assistant	1	100%	
Assistant Fire Marshal	2	100%	<p>The two assistant fire marshals divide responsibilities as follows:</p> <p>Assistant Fire Marshal</p> <ul style="list-style-type: none"> Monitors/coordinate the company inspection program including quality controlling results. Oversees plan review/plan check staff and activities and conducts/completes complex plan checks.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Assistant Fire Marshal (continued)			<ul style="list-style-type: none"> • Conducts code reviews and prepares/recommends code updates. • Handles permitting for underground tanks, propane tanks, and comparable hazardous installations. • Handles customer complaints. • Accomplishes special projects as assigned by the Fire Marshal. <p>Assistant Fire Marshal</p> <ul style="list-style-type: none"> • Oversees the fire prevention field inspection program with special focus on activities of field fire inspectors. • Supervises inspectors including 40 hour per week and shift deputy fire marshals.
Assistant Fire Marshals – Plans Analysis	3	100%	<p>Conduct plan checks and plan reviews for new construction and remodels for Scottsdale related construction. While all can handle various types of construction, the current basic division of responsibilities for plan check and plan review are as follows:</p> <ul style="list-style-type: none"> • Major buildings and constructions projects. • Commercial building sprinkler system and complex residential occupancies. • Development review of site plans and development projects. • Tenant improvements and residential sprinkler systems, plus back-up of development review activities. <p>The plans analysis staff are located at the Scottsdale development review center to provide one-stop shopping for applicants and to work in conjunction with Scottsdale planning and building safety involved in development and application review.</p>
Plans Analyst	1	100%	

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Public Information Officer	2	75%	The Public Information Officer (PIO) serves as a contact with the press (all medias) for the services in Scottsdale. This includes both reactive (responding to requests from the press regarding various incidents) and proactive (press releases, scheduled events and others). The second PIO has just been hired.
Public Education Officer	1	100%	The Public Education Officer (PEO) provides services to schools, organization and other providers. In addition, the PEO works with the PIO to get public education efforts more widespread. This may include events for the press that focus on issues such as fire safety, water safety (drowning prevention) and so on. Direct outreach methods are also used (to address water safety, urban-wild interface issues and so on by going door to door, etc.). The PEO is also responsible for identifying resources (including sponsors)
Deputy Fire Marshals (Shift Inspectors)	12	100%	<p>Four Deputy Fire Marshals are assigned as 40 hour per week inspectors. They essentially divide the city in geographic quadrants and conduct new construction inspections and safety inspections in their assigned areas. The five, 40 hour week inspectors focus primarily on new construction inspections and new systems tests.</p> <p>Eight Deputy Fire Marshals are assigned to the suppression shifts as previously described in the station staffing and unit deployment section. They also handle target occupancy and new construction inspections as assigned and scheduled.</p>
Communications/Dispatch			
Fire Alarm Room Supervisors	3	55%	The supervisors have responsibility for providing overall supervision of the center for Scottsdale and associated agencies. This includes scheduling, dealing with leaves, coordinating (and sometimes providing) training and other managerial and supervisory responsibilities.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Position	Number of Positions		Responsibilities
	Total	Percent Allocated to Scottsdale	
Lead Dispatchers	3	55%	Work in support of the shift supervisors. This includes a more direct involvement in training of personnel, working a console as needed, providing back-up and direct supervision during critical incidents and other activities. Will also take on the roles of the supervisors as needed in their absence.
Fire Dispatchers	14 FT 7 PT	55%	Dispatchers provide direct services by taking calls and providing for dispatch of emergency units. The dispatchers are also trained to provide emergency medical dispatch (EMD) using the Dr. Clausen system.
Resource Management			
District Chief, Resource Mgmt.	1	65%	Position currently vacant. When filled (12/01), serves as the Rural/Metro training coordinator for the Maricopa County fire service contracts. In this capacity, works with Battalion Chiefs to plan/schedule multi-company drills; develops training expectations for station captains who have lead training responsibility for day to day training; and supervises the Payroll and Scheduling clerks.
Payroll Clerk	1	60%	Processes time cards and prepares payroll for Maricopa County fire employees.
Scheduling Clerk	1	60%	Prepares work schedule and tracks changes.
Apparatus and Equipment Maintenance			
Fleet Manager	1	45%	The Fleet Maintenance unit provides support to the units assigned within Maricopa County. The shop has staff to handle both heavy and light duty vehicle maintenance, has a team of rovers to do preventive maintenance and maintenance in the field, has fabricators to construct metal and seating and other elements for fire and EMS units. The maintenance facility maintains a parts room for frequently used items and also uses a number of vendors to provide infrequently used items. Most maintenance is done in-house with little contracted out. The shop is equipped with heavy lifts and other equipment necessary to do major pump, engine and transmission work on-site.
Maintenance Supervisor	1	45%	
Equipment Mechanics	8	45%	
Clerk	3	45%	

Other Staff

As part of the Rural/Metro Corporation, the Maricopa County and Scottsdale fire contract service receive support and administrative services from various units within the corporation. These include:
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| <ul style="list-style-type: none">• Corporate Finance and Accounting – Basic financial management and accounting services. Includes payroll checks; accounts payable/receivable; and related financial reports and transactions.• Corporate Human Resources – Develop and package employee benefits; establish and monitor human resource program standards; etc.• Group Human Resources – There is a three person unit assigned to the Fire Integrated Response Group, and they provide direct support to the Scottsdale contract as part of the Maricopa County Fire operation. Services provided include; (1) Professional level counsel on discipline, labor relations, EEO issues, labor relations and contract administration and the like; and (2) Benefits administration and employee assistance for employees of the Group; and (3) Recruitment services in support of Maricopa County based fire operations. |
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2. FINANCIAL STRUCTURE OF THE FIRE SERVICE DELIVERY SYSTEM IN SCOTTSDALE.

There are three basic components underlying the financial structure of the fire and emergency medical service delivery system as it relates to the City of Scottsdale:

- The City budget for fire services including City services which are directly paid by the City and the Rural/Metro contract.
- The contract with Rural/Metro.
- Rural/Metro's internal procedures for allocating costs to the fire contract.

The sub-sections which follow outline our understanding of each of these components.

(1) Structure and Content of the Rural/Metro Contract.

The current contract represents an evolution of a number years of experience between Rural/Metro and the City and each new contract builds on the previous contract(s) for cost increases. Historically and currently, the contract has been structured as a fixed price contract for services as described in the contract. The matrix which follows shows the major cost components of the contract and summarizes our understanding of how year-to-year cost increases are determined.

Contract Component	How Calculated and Increases Determined
Wages	<p>The previous year contract base is the starting point for the wage portion of the contract. The contract calls for increases as follows:</p> <ul style="list-style-type: none"> • For base services (excluding any additional positions to provide programs or staff new stations), the previous year wage total is increased by the average of increases granted to fire personnel in the cities of Phoenix, Tempe, Mesa and Glendale for the previous year. This average percent COLA style increase is calculated by the City's Human Resources Department and provided to Rural/Metro following July 1. In the past, the City has authorized and paid for increases to the wage base to address compensation gaps between Rural/Metro fire staff and other municipal fire departments in the Maricopa County area. Major items impacting wage costs such as changes in the base work week, substantial changes in benefit costs, and the like are negotiated outside the provisions of the wage base plus inflator as described above. • When additional positions are included as part of the budget/contract proposal, the cost of those positions are added to the wage base as follows: For each position, salary cost projected at mid-range based on Rural/ Metro salary ranges for the position(s) being added; benefits and payroll taxes/costs at 20% and allocated administrative overhead at 16% of total salary and benefit costs. If positions are not planned to be in place for the full twelve month period covered by the contract, salary, benefit, and overhead costs are apportioned based on the expected number of months during the year that those positions would be filled and involved in delivering service to Scottsdale
Expense	<p>All other expense categories are charged based on the base plus an adjustment percent based on the following as stipulated in the contract: Other contract charges used to be increased up to the amount of the Phoenix Metropolitan Average Annual Four Quarter CPI index as calculated by Arizona State University Center for Business Research. However, the Center no longer calculates this rate. The Western Federal Reserve Region CPI figure will now be used each calendar year. In no case will this amount exceed 7%."</p> <p>The contract also provides that this escalator is subject to the City's ability to pay and the base amount and provides for the following: (1) The escalator amount can be subject to negotiation; and (2) Ability to pay is defined as "the annual percentage increase in contract and commodity accounts in the City Operating Budget, excluding General Fire."</p> <p>Expense increases related to service enhancements above the base amount are negotiated based on cost projections provided by Rural/Metro and addressed during the contract negotiation and budget process.</p> <p>Over the years, Rural/Metro and the City have agreed to various adjustments regarding the composition of the expense base. For example, the Fire Support Group was added to the base at one time, then deleted from based on an agreement between Rural/Metro and the City that the City would assume the costs associated with the Fire Support Group.</p>

Contract Component	How Calculated and Increases Determined
Expense (continued)	It is our understanding that when these adjustments have occurred, the base amount for expenses/all other contract costs has been adjusted at that time based on the actual cost of the item being added or deleted based on projected costs for the next budget/contract year and agreement of the parties.
Interest and Depreciation	<p>This contract component was established and agreed to approximately 15 years ago. At that time, it is reported that the City was not in a financial position to purchase new fire apparatus and major items of equipment. As a result, the City and Rural/Metro agreed that Rural/Metro would purchase major equipment items and the City would reimburse Rural/Metro for the cost of purchasing and funding major capital items including provisions for purchase cost of major items and the cost of funds invested in those items. It is our understanding that the following provisions apply to all non-disposable items valued in excess of \$500 at the time of purchase.</p> <ul style="list-style-type: none">• Apparatus and major items are depreciated over 144 months based on straight line depreciation. 80% of apparatus value is depreciated assuming that 20% will be recouped at the time of disposal at the end of the 144 month depreciation period. Net depreciation costs are charged to the City.• Interest on un-depreciated net amounts is charged to the City at a rate of 1.04% per month.
Service Fee	The service fee represents is viewed as representing "profit" on the other items noted above. The contract does not speak to the Service Fee; how it is calculated; and the components of the contract to which it applies. Interviews indicate that the service fee has traditionally been added to the contract; includes not only profit but also "recapture" of corporate and group costs which are not charged directly to or allocated within the other contract components. The Service Fee has averaged in the 5.5 % range in recent years. The actual amount of the fee is based on: (1) Increasing the dollar amount at about the same percentage/rate that the other cost components have increased; and (2) keeping the amount in the historical 5.5% range.

Once the above amounts are agreed to by major cost component and in total, Rural/Metro is responsible for delivering fire services within the total contract amount for the period specified. While the potential exists for Rural/Metro to request ancillary payments due to unusual circumstances, interviews indicate that this is typically not the case. Interviews indicate that Rural/Metro has requested reimbursement above the fixed contract amount only once and that involved a major wild lands fire situation which occurred in and around Scottsdale.

(2) **How Rural/Metro Allocates Internal Costs to the Scottsdale Fire Contract.**

Rural/Metro maintains an internal cost accounting system which allocates costs to the Scottsdale Fire contract as one of the company's cost centers involving both fire services in the Maricopa County area as well as elsewhere in the United States. Under the current contract service approach with the City of Scottsdale, Rural/Metro receives the agreed upon total contract amount, and it is up to Rural/Metro management to determine how services are delivered and resources spent to meet the service delivery targets defined in the contract. Interviews indicate that there are certain limitations on Rural/Metro's ability to utilize the payment(s) received from Scottsdale under the contract. More specifically:

- Unit deployment and staffing is defined within the contract and must be satisfied by Rural/Metro – directly circumscribing flexibility related to the number and type of staff employed to deliver contract service.
- Staff compensation. While specific salary levels are not required within the contract structure, contract language does speak to maintaining a competitive relationship (95% of the four agency average previously referenced) with area fire agencies.
- Providing other support staff (e.g. fire prevention) to meet the performance standards included in the contract.

The internal cost accounting system maintained by Rural/Metro is utilized to monitor the financial performance of the company's various lines of business including the Scottsdale contract. Because of the nature of the current and historical nature of the contract which has and continues to raise the fee based on the previous year's base plus contract provided inflators plus any service increase, the internal cost accounting, from the City's perspective, has no direct impact on the City's service costs.

The Rural/Metro cost accounting system includes three principal profit centers for Scottsdale as follows:

- Scottsdale Fire: Includes fire suppression line and battalion command staff and other costs associated with delivery of fire suppression services.
- Scottsdale EMS: Includes staff providing ambulance emergency response and transport services. Revenue supported, and not supported by fire contract resources. Includes paramedic

compensation differential paid to staff assigned to Scottsdale fire suppression services.

- Scottsdale Fire Prevention: Covers costs associated with fire prevention services including staff from Assistant Fire Marshal level down.

The first matrix which follows below lists and describes how costs from various cost centers are allocated to the Scottsdale contract/profit center.

Cost Component	How Allocated to the Scottsdale Fire Service Operating or Profit Center
Direct Salaries and Other Payroll Related Costs for Fire Suppression and Fire Prevention Staff Assigned to Scottsdale	<p>Salary and other payroll related costs for the shift Battalion Chiefs and down are charged at actual cost to the Scottsdale contract and fire suppression cost center. Fire prevention costs cover Assistant Fire Marshals and down. Includes:</p> <ul style="list-style-type: none">• Salaries at actual cost/placement of individual personnel in the Rural/Metro compensation plan.• Overtime and related pays associated with providing coverage for response units.• Costs associated with pay to employees on Workers' Compensation Leave for whom Rural/Metro pays the difference between the employee's salary and amounts paid by Arizona Workers' Compensation.• Compensation for any part-time staff utilized to deliver fire services.
Payroll Taxes and Benefit Costs	<p>Includes payroll related costs/charges for FICA, Workers' Compensation, Health Insurance, uniform allowance(s), medical insurance, and employee recognition awards. Also charged at actual cost based on staff actually charged to fire suppression and fire prevention as described above.</p>

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Cost Component	How Allocated to the Scottsdale Fire Service Operating or Profit Center
Depreciation	<p>Relates to Rural/Metro owned vehicles and major equipment items (valued at over \$500 acquisition cost) which are used by/ assigned to organizational units involved in delivering fire suppression and fire prevention services to Scottsdale. Rural/Metro owned vehicles are depreciated over 12 years with straight line depreciation costs for those vehicles charged to this cost center category. 80% of apparatus value/purchase price is depreciated with 20% assumed to be recouped at time of disposal/sale.</p> <p>Major items of equipment with acquisition value in excess of \$ 500 are also charged to this category based on various periods of depreciation depending on cost and expected usable life. Depreciation for these items is also charged on a straight line basis.</p>
Interest	<p>Charged at a rate of 12.48% per year based on the unappreciated balance for Rural/Metro owned apparatus and major equipment items utilized in delivering fire suppression and emergency medical services to Scottsdale.</p>

Cost Component	How Allocated to the Scottsdale Fire Service Operating or Profit Center
Vehicle and Equipment Maintenance and Operations	<p>The Scottsdale fire suppression and fire prevention service includes vehicles/apparatus in two major categories: Those owned by the City of Scottsdale and those owned by Rural/Metro. Costs charged/allocated to the operations and maintenance of the vehicles in these two categories are as follows:</p> <ul style="list-style-type: none"> • Labor costs associated with the repair/maintenance of Scottsdale owned vehicles are charged to the City (and covered by the City's fire service costs and budget as previously described. Labor costs are charged to the City at Rural/Metro's "shop rate" of \$45 per hour. These costs are charged above and beyond the fire suppression and emergency medical services contract between the City and Rural/Metro • Labor costs associated with repair and maintenance of Rural/Metro owned vehicles, radios, and other equipment which are utilized in the delivery of fire suppression and emergency medical services are charged to the Scottsdale fire suppression and fire prevention cost centers based on the following allocation formula: The previous year's total labor hours generated by the Rural/Metro maintenance repair facility less hours charged at the "shop rate" to various customers divided into labor hours expended on vehicles/ apparatus assigned to serve Scottsdale and other customers. The resulting percent is employed to allocate shop labor costs to the Scottsdale and other cost centers for the current year. The current allocation percent for this item is 24.03% to Scottsdale fire protection and 6.82% to Scottsdale fire prevention for a total of 30.85% allocated to the Scottsdale cost centers. • Parts costs involved in maintaining Scottsdale owned vehicles are charged directly to the City on a cost plus 10% basis. Rural/Metro pays sales taxes for these items. • Parts costs involved in maintaining Rural/Metro owned vehicles are charged to the cost center to which the vehicle is assigned at an actual cost plus sales tax basis. This includes parts, tires, and other miscellaneous items. • Fuel for both Scottsdale owned and Rural/Metro owned vehicles are charged to the cost center(s) on an actual cost basis (purchase plus sales and other related taxes). • License fees are charged as follows: (1) Direct to the City • Other supplies and materials are charged to the cost centers at direct cost.

CITY OF SCOTTSDALE, ARIZONA
Analysis of Fire Services

Cost Component	How Allocated to the Scottsdale Fire Service Operating or Profit Center
Station Expenses and Supplies	As previously described, under the current agreement between Scottsdale and Rural/Metro, some expenses are paid directly by the City and some by Rural/ Metro and charged to the cost centers through Rural/Metro's cost accounting system at actual costs.
Other Expenses	<p>Within the Rural/Metro cost accounting system, other expenses involve two major categories which are charged/allocated:</p> <ul style="list-style-type: none"> • Insurance costs including liability, malpractice, and vehicle insurance and settlements of claims (e.g. for vehicle accidents) are allocated to the cost center(s) based on proportional percent of total payroll costs for each cost center compared to total payroll costs. The calculation is based on costs and payroll for the Fire Integrated Response Group.
Other Allocated Costs	<p>The Rural/Metro cost accounting system provides for and allocates a number of costs to each of the cost centers within the company. Those impacting the Scottsdale cost centers are:</p> <ul style="list-style-type: none"> • Fire Overhead: Includes labor and other operating costs associated with management and command (above the Battalion Chief) level for the Maricopa Fire Division. Positions/functions covered by this allocation include the Maricopa Fire Chief; Assistant Chief, Operations; Assistant Chief, Fire Prevention; the Public Information Officer; Compliance Officer; Human Resource Assistant; SCBA Technician; and the District Chief, Resource Management (training officer) and support staff assigned to the scheduling and payroll processing in the Resource Management unit which supports Maricopa fire operations. These costs are allocated to the various cost centers based on proportional revenues generated from each cost center within the Maricopa Fire Division. Currently, 45.9% of these costs are allocated to the Scottsdale fire protection cost center. • Communications. These costs relate to the operations and services of the communications center which supports fire suppression services in the Maricopa Fire Division. EMS dispatch operations are a separated cost center and are not allocated to the Scottsdale Fire Cost centers. Communications costs include two components as follows: (1) Dispatching and call taking and fire dispatch center supervision; and (2) Technical support including CAD and GIS maintenance. The latter are apportioned to fire and EMS communications on 50/50 basis. Fire communications, including direct and allocated technical support costs are allocated to Maricopa Fire Division cost centers based on proportional revenues generated from each cost center within the Maricopa Fire Division. Currently, 45.9% of these costs (i.e., of the 50%, or about 23% of the total) are allocated to the Scottsdale fire protection cost center.

Cost Component	How Allocated to the Scottsdale Fire Service Operating or Profit Center
Other Allocated Costs (Continued)	<ul style="list-style-type: none">• Corporate Allocation. This allocation covers the following services: Corporate level activities (above the Fire Integrated Response Group) benefits administration (e.g. negotiating insurance contracts); risk management (e.g. purchasing liability insurance(s) and negotiating/settling claims); legal services; finance and payroll (accounting and payroll checks); and corporate top management). These costs are allocated to and within the Maricopa Fire Division based on proportional revenues generated from each line service cost center compared to total corporate revenues.
Integrated Fire Response Group Management	It is our understanding that costs associated with the Integrated Fire Response Group (Group President, Human Resources Analyst, and Executive Secretary/Assistant) are not allocated to cost centers within the Group, and are expected to be "covered" by contribution to profit generated by the Group.

Based on the cost allocation methodologies outlined above, for Fiscal Year 2000/2001 costs allocated to delivery of fire services in Scottsdale were as shown on the exhibit which follows this page. As can be seen from review of the information shown in the exhibit, the fire suppression and fire prevention contract services generated net income of about 6.1% when direct and allocated costs are compared to revenues. This amount is exclusive on provisions for state and federal taxes (estimated at 42.3%) and coverage of costs associated with Integrated Fire Group Management.

3. SERVICE DEMAND AND PERFORMANCE.

This section describes service expectations and performance measures included within the Scottsdale contract, and shows performance and service demand indicators related to the Scottsdale fire and emergency medical service operation.

EXHIBIT

Scottsdale Fire Services
Rural/Metro
Fiscal 2000 - 2001
Operating Performance

Item	Cost Center		Contract Total
	Scottsdale Fire Protection	Scottsdale Fire Prevention	
Revenues			
Contract	\$14,424,224	\$0	\$14,424,224
Other	12	94,816	94,828
Revenue Total	\$14,424,236	\$94,816	\$14,519,052
Costs			
Direct Labor			
Regular Salaries	\$6,748,039	\$840,111	\$7,588,150
Overtime/Coverage	611,094	11,931	623,025
Incentives	193,325	18,605	211,930
Industrial Leave Adj.	130,303	0	130,303
Payroll Expense	1,410,480	141,683	1,552,163
Other	5,583	19,871	25,454
Sub-Total Labor	\$9,098,824	\$1,032,201	\$10,131,025
Operating Expense			
Depreciation	\$110,389	\$38,843	\$149,232
Interest	34,301	11,671	45,972
Veh./Equip. Maint.	614,165	68,240	682,405
Station Expense	136,160	152,674	288,834
Insurance	159,325	34,986	194,311
Other Operating Expense	314,231	95,785	410,016
Sub-Total Expense	\$1,368,571	\$402,199	\$1,770,770
Allocated Costs			
Fire Overhead	\$628,905	\$0	\$628,905
Communications	628,605	0	628,605
Corporate Allocations	469,741	2,951	472,692
Sub-Total Allocated Costs	\$1,727,251	\$2,951	\$1,730,202
Cost Total	\$ 12,194,646	\$ 1,437,351	\$ 13,631,997
Pre-Tax Income	\$2,229,590	-\$1,342,535	\$887,055

(1) Performance Expectations As Expressed in the Contract.

The contract between Rural/Metro and Scottsdale establishes a variety of performance measures related to fire protection/suppression and fire prevention services. Our understanding of those measures is summarized in the table which follows:

Performance Measure	Performance Requirement/Expectation
Response Unit Staffing	Contract provides for minimum/constant staffing of response units by station. Includes both fire and EMS response units even though EMS units are not supported by contract revenues. Unit staffing requirements are as noted in the first section of this Profile.
First In-Unit Response Times	<p>Specific response time performance targets are established by area of Scottsdale, with expectations varying based on area and population density. Response time is defined in the contract as travel time (time en route until arrival at the fire scene. The contract also states that response units are expected to be en route within 60 seconds between the hours of 0700 and 2100, and within 120 seconds between the hours of 2100 and 0700. The contract does not define if this time is measured from receipt of the call by fire communications or notification of response units by fire dispatch. Standards set in the contract are as follows:</p> <ul style="list-style-type: none">• Stations 10 and 11: 90% of calls within 4 minutes or less.• Stations 12, 13, 14, and 15: 90% of calls within 5 minutes or less.• Stations 18 and 19: 90% of calls within 7 minutes.• Having an Advanced Life Support (ALS) capability on scene within the response time limits noted above, and a second ALS unit on scene within 8 minutes. The contract stipulates that one of the response units be a transport unit. <p>The contract reviewed by the project team during initial data collection did not include response time targets for Stations 817 and 820, nor Station 827 once completed and staffed.</p>

Performance Measure	Performance Requirement/Expectation
Apparatus Response and Fire Flow Capability Targets	<p>The contract includes a series of requirements related to fire flow capability associated with response to reported fires in various types of occupancies. These include:</p> <ul style="list-style-type: none"> • 3,000 gallon per minute (GPM) for calls for assignments involving major commercial and industrial structures as defined in the contract. • 1,000 GPM for residential and smaller commercial structures as defined in the contract. • 250 GPM for "Still" assignments such as vehicle, refuse, and small brush fires. • One airport rescue fire fighting truck with aircraft fire suppression capabilities consistent with FAA requirements for airport/aircraft incidents. • One piece of apparatus for all service incidents as defined in the contract. • One piece of apparatus to emergency medical incidents plus an ALS transport unit as noted above. <p>The contract also stipulates the number of staff who should respond to incidents of various types as follows by station area:</p> <ul style="list-style-type: none"> • Stations 810 and 811: EMS calls – minimum of one paramedic and one fire fighter EMT; Structure Fire – 12 on-duty staff and one battalion chief plus average response of 10 fire support/reserve personnel. • Other Stations: EMS calls – minimum of one paramedic and one fire fighter EMT; Structure Fire – 9 on-duty staff and one battalion chief plus average response of 10 fire support/reserve personnel.

Performance Measure	Performance Requirement/Expectation
Fire Prevention Performance Targets	<p>Basic performance targets for fire prevention in the contract are:</p> <ul style="list-style-type: none">• Complete 100% of all Certificate of Occupancy inspections as requested, and within 24 hours of the inspection request 99% of the time.• Inspect 95% of commercial occupancies annually.• Respond to inspection requests within 24 hours 95% of the time.• Respond to all inspection requests within 48 hours.• Provide inspections of each new residence 100% of the times requested.• Provide night time inspections on Friday or Saturday evenings of 100% of heavily attended night clubs by fire companies on a monthly basis and quarterly by fire prevention specialists/inspectors.• Test all hydrants annually.• Complete 98% of plan reviews within five days of submission.• Provide CPR training to 5,000 citizens annually.• Conduct home inspections by fire companies for 100% of the requests for inspections received.• Provide blood pressure checks at fire stations, as crews are available, and on Saturdays from 0900 to 1200. <p>The contract also requires Rural/Metro to develop an annual fire prevention plan, and provide prevention programs for schools and adults and specific requirement for juvenile fire setter program.</p>

Performance Measure	Performance Requirement/Expectation
Training	<p>Requires Rural/Metro to provide 240 hours of in-service training per year per fire fighter, with specific training requirements to be defined and agreed to by the Contract Administrator and Rural/Metro. Each annual contract is to define specific training requirements and expectations. Requirements include:</p> <ul style="list-style-type: none">• In-service training as noted above.• Probationary testing within the first year of employment based on requirements and tests as outlined in the IFSTA manuals.• Annual evaluation of each company by district chief(s) compared to performance standards developed by Rural/Metro and provided to and agreed upon with the Contract Administrator.• Annual evaluation of each fire fighter by district chiefs compared to specified IFSTA mandated fire ground skills• Twice annual physical agility testing of all employees.• Twice annual night drills for all companies.• Monthly training of the Hazardous Materials team and quarterly training with an agency from elsewhere in the State.• Quarterly drill involving the airport company and other emergency service providers in the City.• Give 12% of the uniformed personnel the chance to attend State Fire Marshal School; notify the Contract Administrator of those attending.• 10 attendances annually at search and rescue training for Dive Team.• Annual Incident Command System (ICS) training for all personnel.

The current contract between the City of Scottsdale and Rural Metro has been amended (in text as well as in side agreements) to include various performance indicators. Examples of those as well as the approach that the City has used to manage this process are summarized, below:

- Examples of performance indicators in the contract and agreements include:
 - Reaction time standards.
 - Response time standards (by area of the City).

- Time spent out of the City (done on a net basis with services received from RM units from outside the City).
- Staff time dedicated (net) to responses outside the City.
- The approaches taken by the City to maintain control over these standards is as follows:
 - Dedicated staff coordinate and maintain the relationship between the City and Rural Metro – this includes reviewing data regarding time standards.
 - Rural Metro provides monthly performance reports. These are detailed documents showing each incident or run where an exception to the standard took place. A reason for the occurrence of the exception is provided (or obtained if missing) for review by City staff.
 - City staff meet with staff from Rural Metro to discuss major issues and to ensure that steps are taken to address concerns.

The following section addresses service demand and other activities (including fire prevention, public education, inspections, etc.).

(2) Actual Service Demand and Performance.

The project team has prepared a number of exhibits describing the workload of fire services in Scottsdale. These exhibits were developed from data made available to us by both Rural Metro and the City of Scottsdale (this data also generally came from Rural Metro). The exhibits include the following:

- Calls for service by time of day and day of week for each major group:
 - Fire
 - EMS
 - Public Service
 - General Transport
- Average response times by unit
- Calls per unit
- Calls by type
- Calls by response area (as defined in the CAD)
- Fire prevention and education activities

These exhibits are provided on the following pages.

**Distribution of Fire Calls for Service
Scottsdale, Arizona - June 2000 - May 2001**

Hour/Day	Calls by Time of Day							Total	Avg. / Hour
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
0000	14	18	19	20	19	18	16	124	0.3
0100	11	14	15	16	15	14	13	100	0.3
0200	12	15	16	16	16	15	13	104	0.3
0300	11	14	15	15	15	14	12	95	0.3
0400	9	11	12	12	12	11	10	76	0.2
0500	13	17	18	18	18	17	15	115	0.3
0600	22	27	29	30	29	27	24	188	0.5
0700	32	40	43	44	43	40	36	279	0.8
0800	35	44	47	48	47	44	39	304	0.8
0900	36	46	49	50	49	45	41	315	0.9
1000	37	47	50	51	50	46	42	323	0.9
1100	38	47	51	52	51	47	42	328	0.9
1200	38	47	50	52	50	47	42	327	0.9
1300	38	48	51	52	51	48	43	331	0.9
1400	33	42	45	46	45	42	38	291	0.8
1500	38	48	51	52	51	47	43	330	0.9
1600	39	49	52	54	52	49	44	340	0.9
1700	43	54	58	59	58	54	48	373	1.0
1800	40	51	54	56	54	51	45	351	1.0
1900	35	44	47	49	47	44	40	307	0.8
2000	30	37	40	41	40	37	34	259	0.7
2100	22	28	30	31	30	28	25	195	0.5
2200	21	26	28	29	28	26	24	183	0.5
2300	20	26	27	28	27	26	23	178	0.5
Total	668	841	897	922	898	837	763	5,816	0.7
Avg. / Day	12.8	16.2	17.3	17.7	17.3	16.1	14.5	16.0	

**Distribution of EMS Calls for Service
Scottsdale, Arizona - June 2000 - May 2001**

Hour/Day	Calls by Time of Day							Total	Avg. / Hour
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
0000	64	65	62	67	69	72	69	468	1.3
0100	73	75	71	77	79	83	80	539	1.5
0200	49	50	48	52	53	56	54	362	1.0
0300	37	37	36	38	40	42	40	269	0.7
0400	35	36	34	37	38	40	39	260	0.7
0500	41	42	40	43	44	47	45	302	0.8
0600	52	53	51	55	56	59	57	382	1.0
0700	75	77	73	79	82	86	82	555	1.5
0800	100	103	97	105	108	114	109	736	2.0
0900	114	117	111	120	123	129	124	837	2.3
1000	111	114	109	117	121	127	122	821	2.2
1100	118	121	115	124	127	134	128	867	2.4
1200	131	134	128	138	142	149	143	965	2.6
1300	111	114	108	116	120	126	121	815	2.2
1400	112	115	109	118	121	128	122	826	2.3
1500	112	115	110	118	122	128	123	828	2.3
1600	112	115	109	118	122	128	123	827	2.3
1700	111	114	108	116	120	126	121	815	2.2
1800	112	115	109	118	121	128	122	825	2.3
1900	106	108	103	111	114	120	115	778	2.1
2000	87	90	85	92	95	99	95	643	1.8
2100	91	93	89	96	98	104	99	670	1.8
2200	84	86	82	88	91	95	91	616	1.7
2300	63	65	62	66	68	72	69	465	1.3
Total	2,101	2,155	2,048	2,209	2,274	2,392	2,292	15,471	1.8
Avg. / Day	40.4	41.4	39.4	42.5	43.7	46.0	44.1	42.5	

**Distribution of General Transport Calls for Service
Scottsdale, Arizona - June 2000 - May 2001**

Hour/Day	Calls by Time of Day							Total	Avg. / Hour
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
0000	10	12	13	14	13	14	11	87	0.2
0100	7	9	10	11	10	11	8	67	0.2
0200	5	6	7	7	7	7	6	45	0.1
0300	5	7	7	8	7	8	6	47	0.1
0400	5	6	7	7	7	7	6	45	0.1
0500	5	6	6	7	7	7	5	42	0.1
0600	8	10	10	11	11	11	9	69	0.2
0700	10	13	13	14	14	14	11	89	0.2
0800	10	13	13	14	14	14	11	90	0.2
0900	12	15	15	17	16	17	13	104	0.3
1000	18	22	23	25	24	25	20	158	0.4
1100	19	24	25	27	26	27	21	169	0.5
1200	17	22	23	25	24	25	20	156	0.4
1300	19	24	25	27	26	27	21	170	0.5
1400	19	24	25	27	27	27	21	171	0.5
1500	21	27	28	31	30	31	24	191	0.5
1600	19	24	24	27	26	27	21	167	0.5
1700	16	21	21	24	23	24	18	147	0.4
1800	17	22	23	25	24	25	20	156	0.4
1900	11	14	15	16	16	16	13	101	0.3
2000	12	16	16	18	17	18	14	111	0.3
2100	14	17	18	20	19	20	15	122	0.3
2200	9	12	12	13	13	13	11	84	0.2
2300	11	13	14	15	15	15	12	95	0.3
Total	299	378	392	430	416	431	337	2,683	0.3
Avg. / Day	5.8	7.3	7.5	8.3	8.0	8.3	6.5	7.4	

**Distribution of Public Calls for Service
Scottsdale, Arizona - June 2000 - May 2001**

Hour/Day	Calls by Time of Day							Total	Avg. / Hour
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
0000	4	5	5	5	6	6	5	36	0.1
0100	5	5	6	6	6	6	5	40	0.1
0200	4	4	5	5	5	5	4	31	0.1
0300	3	3	3	3	3	3	3	22	0.1
0400	3	4	4	4	4	4	4	27	0.1
0500	4	4	5	5	5	5	4	32	0.1
0600	7	8	9	9	9	9	8	60	0.2
0700	9	10	11	12	12	12	10	76	0.2
0800	15	16	19	19	20	19	16	124	0.3
0900	17	18	21	21	22	22	19	140	0.4
1000	21	22	25	26	27	27	23	170	0.5
1100	19	21	24	24	25	25	21	160	0.4
1200	16	17	20	20	21	20	17	131	0.4
1300	16	18	20	21	21	21	18	136	0.4
1400	15	16	19	19	20	20	17	126	0.3
1500	16	17	19	20	21	20	17	130	0.4
1600	16	17	19	20	21	20	17	130	0.4
1700	14	15	17	17	18	18	15	114	0.3
1800	16	17	19	20	21	20	17	130	0.4
1900	19	20	23	24	24	24	21	155	0.4
2000	14	15	17	18	18	18	15	116	0.3
2100	12	13	15	15	16	15	13	99	0.3
2200	9	9	11	11	11	11	9	71	0.2
2300	6	7	8	8	8	8	7	51	0.1
Total	279	300	346	352	364	360	306	2,307	0.3
Avg. / Day	5.4	5.8	6.7	6.8	7.0	6.9	5.9	6.3	

**Distribution of Total Calls for Service
Scottsdale, Arizona - June 2000 - May 2001**

Hour/Day	Calls by Time of Day							Total	Avg. / Hour
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday		
0000	92	100	99	106	107	110	101	715	2.0
0100	97	104	103	110	111	115	107	746	2.0
0200	70	76	75	80	81	83	77	542	1.5
0300	55	61	60	64	65	66	61	433	1.2
0400	52	57	57	61	61	63	58	408	1.1
0500	63	69	69	73	74	75	69	491	1.3
0600	88	98	99	105	105	107	98	699	1.9
0700	127	140	141	149	150	152	140	999	2.7
0800	160	175	176	187	189	191	176	1,254	3.4
0900	178	195	196	207	210	213	196	1,396	3.8
1000	187	205	207	220	222	225	206	1,472	4.0
1100	194	213	214	227	230	233	213	1,524	4.2
1200	202	221	221	235	237	242	222	1,579	4.3
1300	184	203	204	217	219	222	203	1,452	4.0
1400	180	198	198	211	213	217	198	1,414	3.9
1500	187	207	208	221	223	226	207	1,479	4.1
1600	186	205	206	219	220	224	205	1,464	4.0
1700	184	203	204	216	218	221	203	1,449	4.0
1800	185	205	206	218	220	223	205	1,462	4.0
1900	171	187	188	200	202	205	188	1,341	3.7
2000	143	158	159	168	170	173	158	1,129	3.1
2100	139	152	151	161	163	167	153	1,086	3.0
2200	123	133	133	141	143	146	135	954	2.6
2300	100	111	111	118	119	121	111	789	2.2
Total	3,347	3,674	3,683	3,913	3,952	4,020	3,688	26,277	3.0
Avg. / Day	64.4	70.7	70.8	75.3	76.0	77.3	70.9	72.2	

Responses In and Out of Scottsdale									
	January	February	March	April	May	June	July	August	
Total Runs Out of Scottsdale	63	73	89	109	98	60	38	56	
Total Incident Time Out of Scottsdale	35	53	48	54	58	28	28	52	
Total Man Hours Out of Scottsdale	126	146	141	148	171	78	79	136	
Number of Incidents w/City Trucks	63	73	89	109	98	60	38	56	
City Responses	1,762	1,653	1,797	2,116	1,907	1,616	1,649	1,808	
Runs our of Scottsdale	63	73	89	109	98	60	38	56	
Total City Response	1,825	1,726	1,886	2,225	2,005	1,676	1,687	1,864	
Total Mutual Aid Runs	14	14	19	21	15	16	19	20	
Total Incident Time Out	6	8	7	17	7	4	7	3	
Total Manpower	27	25	18	35	20	12	23	10	
Total Runs into Scottsdale	16	14	18	52	36	15	23	13	
Total Incident Time into Scottsdale	6	5	6	17	15	5	10	5	
Total Man Hours into Scottsdale	17	15	20	51	45	15	31	23	

Responses In and Out of Scottsdale							2000 Total	January	February	March
September	October	November	December							
Total Runs Out of Scottsdale	54	63	61	68				62	57	41
Total Incident Time Out of Scottsdale	48	29	33	36				53	50	36
Total Man Hours Out of Scottsdale	163	91	89	101				144	155	110
Number of Incidents w/City Trucks	54	63	61	68				62	57	41
City Responses	1,856	1,853	1,798	1,728				1,856	1,667	2,030
Runs out of Scottsdale	54	63	9	68				62	57	41
Total City Response	1,910	1,916	1,807	1,796				1,918	1,724	2,071
Total Mutual Aid Runs	24	13	24	11				12	8	10
Total Incident Time Out	8	59	4	20				3	2	5
Total Manpower	21	17	15	17				11	5	7
Total Runs into Scottsdale	21	14	9	13				16	9	24
Total Incident Time into Scottsdale	9	3	3	5				5	4	3
Total Man Hours into Scottsdale	22	9	11	16				14	13	11

Responses In and Out of Scottsdale			
	April	May	2001 Total
Total Runs Out of Scottsdale	NA	83	729
Total Incident Time Out of Scottsdale	NA	49	563
Total Man Hours Out of Scottsdale	NA	131	1,622
Number of Incidents w/City Trucks	NA	83	729
City Responses	NA	1,941	22,482
Runs out of Scottsdale	NA	83	729
Total City Response	NA	2,024	23,211
Total Mutual Aid Runs	NA	12	126
Total Incident Time Out	NA	6	48
Total Manpower	NA	18	124
Total Runs into Scottsdale	NA	22	213
Total Incident Time into Scottsdale	NA	11	69
Total Man Hours into Scottsdale	NA	34	218

Calls per Response Area	
Response Area	Number of Calls
???????	3548
Apache Junction	2
Buckeye	1
Chandler	1
Daisy Mountain	9
Florence	1
Gila Bend Fire District	1
Glendale	1
Mesa	9
Peoria	1
Phoenix	52
Salt River Indian Reservation	65
Sta 822 Ft. McDowell Casino	3
Sta 810 4 min Zone	3587
Sta 810 5 min Zone	4518
Sta 810 Ch Co Islands	2
Sta 810 ME Co. Island 1	1
Sta 810 ME Co. Island 2	1
Sta 810 PH Awatukeee Co. Island	4
Sta 810 SD Co. Island	2
Sta 810 TE Co. Island 1	22
Sta 810 TE Co. Island 3	1
Sta 810 TE Co. Island 4	1
Sta 811 4 min. Zone	2114
Sta 811 Paradise Valley	391
Sta 811 SD Co. Island	3
Sta 811 SD Pavillions	26
Sta 812 5 min Zone	3049
Sta 812 7 min Zone	273
Sta 812 PH Co. Island	3
Sta 813	2550
Sta 814	2503
Sta 815	573
Sta 816	665
Sta 818	1112
Sta 818 DV County Island	19
Sta 818 PH Co. Island 1	72
Sta 818 PH Co. Island 2	59
Sta 819	1097
Sta 820	221
Sta 821 Carefree	240
Sta 821 Cave Creek	134
Sta 821 CC Co Island	4
Sta 821 Ph Co Islands	22
Sta 821 Scottsdale	54
Sta 821 SD Co Island	21
Sta 822 5 min Zone	532

Response Area	Number of Calls
Sta 822 8 min Zone	86
Sta 822 Fort McDowell	5
Sta 822 Scottsdale	1
Sta 823 Fort McDowell	1
Sta 823 5 min Zone	100
Sta 823 8 min Zone	5
Sta 823 FH Co Island	11
Sta 825	35
Sta 825 County Area	5
Sta 825 McDowell Mtn Park	3
Sta 828	467
Sta 828 PV Co. Island	5
Sta 833	2
Sta 833 Clearwater Farms	1
Sta 833 E. Peoria Co. Island 1	1
Sta 833 Glendale Co. Island 2	1
Sta 833 Norht Area	2
Sta 837	2
Sta 837 Avondale Co. Area	2
Sta 837 Litchfield Park	4
Sta 837 Out of Territory	1
Sta 840 Anthem Community	8
Sta 854	6
Sta 854 Chandler Co. Island 1	1
Sta 855 Pinal County	2
Sta 855 QC Co. Island 6	2
Sta 855 Queen Creek	6
Sta 857 Dreamland Villa	9
Sta 857 E. Mesa Co. Area	1
Sta 857 Gilbert Co. Islnd 4	1
Sta 857 Leisure World	3
Sta 857 N. Mesa Co. Area	2
Sta 857 NE Mesa Co. Area	2
Sta 859	26
Sta 859 NE Mesa Co Island	2
Tempe	4
Tonto National Forest	21

Response Time to Fire Calls
July 2000 - June 2001

Station Area	Response Time
Station 810 (4 minute)	3.70
Station 810 (5 minute)	4.29
Station 810 (Total)	4.05
Station 811 (4 minute)	4.13
Station 811 (5 minute)	3.91
Station 811 (Total)	3.98
Station 812 (5 minute)	4.62
Station 812 (7 minute)	6.48
Station 812 (Total)	4.79
Station 813	4.62
Station 814	3.49
Station 815	3.45
Station 816	5.79
Station 818	5.76
Station 819	4.84
Station 820	N/A
Station 821	N/A
Unknown	7.52
All Areas	5.10

**Response Time to All Emergency Calls
July 2000 - June 2001**

Station Area	Response Time
Station 810 (4 minute)	2.93
Station 810 (5 minute)	4.35
Station 810 (Total)	3.81
Station 811 (4 minute)	3.69
Station 811 (5 minute)	4.51
Station 811 (Total)	4.25
Station 812 (5 minute)	5.58
Station 812 (7 minute)	6.89
Station 812 (Total)	5.69
Station 813	3.94
Station 814	5.28
Station 815	6.43
Station 816	7.33
Station 818	8.25
Station 819	5.07
Station 820	7.11
Station 821	8.05
Unknown	7.89
All Areas	5.21

AVERAGE VEHICLE TIMES

Unit Name	Average Time to Go Enrout	Average Travel Time	Average Committed Time
AP801	0:01:10	0:09:46	1:08:31
AP803	0:00:05	0:00:03	9:45:52
AT808	0:01:31	0:03:43	0:13:23
AT815	0:00:28	0:02:43	3:10:44
AT827	0:01:12	0:03:36	0:22:14
BK801	0:00:11	0:03:13	4:48:14
BK802	0:00:04	0:05:49	6:40:28
BK803	0:00:03	0:00:02	5:38:08
BT810	0:00:22	0:04:48	0:24:30
BT814	0:00:22	0:09:03	0:33:55
C805	0:01:30	0:10:12	1:10:38
C806	0:01:16	0:24:11	1:19:33
CH812	0:00:30	0:03:35	0:16:46
DC811	0:00:25	0:05:55	0:34:34
DC812	0:00:16	0:17:12	1:08:02
E808	0:01:35	0:03:45	0:18:01
E809	0:01:34	0:04:31	0:15:56
E810	0:01:17	0:04:06	0:18:59
E811	0:01:39	0:05:05	0:17:37
E812	0:01:30	0:06:00	0:19:34
E813	0:01:37	0:04:11	0:16:56
E814	14:18:15	0:05:16	0:17:32
E815	0:01:32	0:04:36	0:19:29
E816	0:01:38	0:07:50	0:19:49
E818	0:01:45	0:08:23	0:20:18
E819	0:01:40	0:05:09	0:17:57
E820	0:01:41	0:09:10	0:23:33
E827	0:01:23	0:06:44	0:21:22
F812	0:00:58	0:01:04	0:21:00
HM814	0:02:11	0:18:17	1:01:06
L811	0:01:19	0:04:38	0:18:25
LT811	0:01:15	0:04:41	0:16:48
PV801			0:00:46
PV802	0:01:08	0:19:03	1:50:00
PV803	0:00:58	0:12:29	2:05:23
PV804	0:02:05	0:14:53	2:05:05
PV805	0:01:07	0:12:29	1:48:52
PV806	0:00:04	0:52:54	1:58:29
PV807	0:02:57	0:06:18	0:52:17
PV808	0:00:10	0:10:12	1:10:43
PV809	0:01:33	0:14:27	1:18:08
PV810	0:00:16	0:04:54	0:35:01
PV811	0:04:16	0:20:23	1:50:02
PV812	0:00:30	0:05:54	0:24:55
PV813	0:00:31	0:07:22	0:36:49
PV818	0:00:42	0:10:27	0:25:51

R801	0:01:29	0:05:14	2:44:02
R809	0:01:37	0:04:42	0:36:39
R810	0:01:30	0:04:47	0:38:51
R811	0:01:36	0:05:41	0:41:22
R813	0:01:38	0:06:02	0:43:04
R814	0:01:33	0:07:44	0:42:05
R819	0:01:36	0:06:57	0:36:37
RH801	0:19:06	0:21:35	2:14:15
ST801	0:02:27	0:19:56	1:56:34
ST802	0:01:06	0:26:03	3:16:37
SU810	0:05:03	0:15:02	1:37:59
T812	0:02:12	0:19:25	1:29:17
T818	0:01:53	0:32:14	0:36:51
TR813	0:01:40	0:04:09	0:17:35
U810	0:12:07	0:18:03	2:08:37

STATION 810					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Engine 810	1	1	1		
Engine 808		1	1		
Engine 809		1	1		
Engine 809 (after 1700hrs)				1	
Rescue 809		1	1		
Rescue 810		1	1		
Utility 810 (unstaffed)					
Battalion 810					
STATION 811					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Ladder 811	1	1	1		
Engine 811		1	1		
Rescue 811		1	1		
STATION 812					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Engine 812	1	1	1		
Engine 812 (after 2100hrs)				1	
Foam 812			1		
Chem 812				1	
Chem 812 (after 2100hrs)					
Tender 812 (unstaffed)					
STATION 813					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Truck 813	1	1	1		
Truck 813 (after 1700hrs)				1	
Rescue 813		1	1		

STATION 814					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Engine 814	1	1	1		
Rescue 814		1	1		
HazMat 814 (unstaffed)					
STATION 815					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Engine 815	1	1	1		
STATION 816					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Engine 816	1	1	1		
Engine 827	1	1	1		
Battalion 814					
STATION 818					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Engine 818	1	1	1		
Engine 818 (after 1700hrs)				1	
Tender 818 (unstaffed)					
STATION 819					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Truck 819	1	1	1		
Rescue 819		1	1		
SORT 801 (unstaffed)					
SORT 802 (unstaffed)					
STATION 820					
	Captian	Paramedic/Fire Fighter	Fire Fighter/EMT	Deputy Fire Marshal	
Engine 820	1	1	1		

PERMANENT FACILITIES

Stn.	Address	Units/Staff	City of Scottsdale	Rural Metro
810	2857 North Miller Road	<ul style="list-style-type: none"> • 3 Engine Companies • 2 Rescue/Transport • 1 Battalion Chief • 13 positions 	<ul style="list-style-type: none"> • Engine 809 • Engine 810 	<ul style="list-style-type: none"> • Engine 808
811	7339 East McDonald	<ul style="list-style-type: none"> • 1 Ladder Company • 1 Engine Company • 1 Rescue/Transport • 7 positions 	<ul style="list-style-type: none"> • Ladder 811 	<ul style="list-style-type: none"> • Engine 811
813	9045 East Via Linda	<ul style="list-style-type: none"> • 1 Truck/Engine • 1 Rescue/Transport • 6 positions 		<ul style="list-style-type: none"> • Truck/Engine 813
814	7455 East Shea Boulevard	<ul style="list-style-type: none"> • 1 Engine Company • 1 Rescue/Transport • 5 positions • HazMat Team 	<ul style="list-style-type: none"> • Engine 814 	
815	1160 North 132 nd Street	<ul style="list-style-type: none"> • 1 Engine Company • 3 positions 	<ul style="list-style-type: none"> • Engine 815 	
816	20355 North Pima Road (houses equip. for future stn. 827)	<ul style="list-style-type: none"> • 1 Engine Company • 1 Battalion Chief • 4 positions 		<ul style="list-style-type: none"> • Engine 816
819	10850 East Via Linda	<ul style="list-style-type: none"> • 1 Truck/Engine • 1 Rescue/Transport • 5 positions • Special Operations Rescue Team 	<ul style="list-style-type: none"> • Truck/Engine 	

TEMPORARY FACILITIES

Stn.	Address	Units/Staff	City of Scottsdale	Rural Metro
812	14970 N. 78 th Way	<ul style="list-style-type: none"> • 1 Engine Company • 2 Airport Specialty Units • 5 positions • Primary protection for the Scottsdale Airport and Airpark 	<ul style="list-style-type: none"> • 2 Specialty Units 	<ul style="list-style-type: none"> • Engine 812
818	26602 North Pima	<ul style="list-style-type: none"> • 1 Engine Company • 4 positions • Wildland Specialty Crew 	<ul style="list-style-type: none"> • Engine 818 	
820	9320 East Cave Creek Road	<ul style="list-style-type: none"> • 1 Engine Company • 3 positions 	<ul style="list-style-type: none"> • Engine 820 	

FUTURE PERMANENT FACILITIES

Stn.	Address	Units/Staff	City of Scottsdale	Rural Metro
812	14970 North 78 th Way	<ul style="list-style-type: none"> • Approved Fiscal Year 2001 • Permanent facility will be located on current property next to the tower 		
817	100 th Street and Bell Road	<ul style="list-style-type: none"> • Approved CIP Fiscal Year 2001 • Preliminary design with the Centerfund project has beginning 		
818	Alms School and Pinnacle Vista	<ul style="list-style-type: none"> • Phase I approved Fiscal Year 2000 • Preliminary design has begun. • Second phase will be coordinated with the future park site 		
820	9320 East Cave Creek Road	<ul style="list-style-type: none"> • Proposed CIP Fiscal Year 2004/2006 • Land from Desert Mt. needs to be obtained. 		
827	Pima and Ashler Hills	<ul style="list-style-type: none"> • Proposed CIP Fiscal Year 2001/02 • Will be co-located with existing Water Department facility. 		

4. FIRE AND EMERGENCY MEDICAL SERVICE EQUIPMENT AND OWNERSHIP.

This section should describe who owns the major assets associated with fire and emergency medical service delivery in Scottsdale.

Equipment/Facility Type	Ownership	
	Rural/Metro	City of Scottsdale
Fire Station Structures and Outside Improvements		Now owns all stations.
Fire Station Internal Furnishings	Own furnishings.	Now owns all fixed appliances.
Major Apparatus	See exhibits on preceding pages.	See exhibits on preceding pages.
Other Fire Vehicles	All sedans, small trucks, etc. are owned by RM.	
On-Apparatus Equipment (Hose, Tools, etc.)	Owned by Rural/Metro.	Owens hazardous materials and special ops equipment.
Communications Equipment		
Consoles, Communications Center Equipment	All owned by RM.	
Transmitters/Repeaters	All owned by RM.	
Computer Aided Dispatch Hardware/Software	All owned by RM.	
Other, as Appropriate	All owned by RM.	

5. FIRE PREVENTION PROGRAMS AND SERVICES.

The matrix that follows describes the scope and content of fire prevention and related programs provided in/to Scottsdale by Rural/Metro.

Program Component	Description
Plan Check and Review	Staff are assigned and work out of the Scottsdale development review center and work side by side with City planning and building inspection staff. Turnaround time targets as specified in the contract as previously described. All fee revenues paid directly to Scottsdale by applicants.
Prevention Inspections	As defined in the contract and previously described.

Public Education	<p>Provide a wide range of programs designed to increase public awareness and preparedness. Some example of the current or recent programs implemented by the public education staff include:</p> <ul style="list-style-type: none">• Fire safety• Home escape route planning• Water safety (anti-drowning)• Sprinklers• Smoke detectors• Safety clown shows• Fire / smoke trailer• Fire alarms at schools / institutions
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Summary of Activity by Year for Scottsdale, Arizona
Fire Prevention, Suppression and Other Activities
1999 - 2001

Activity	1999	2000	2001*
Incident Type			
Residential Fire	239	284	247
Commercial Fire	362	308	288
Structure Fire N/C	0	0	0
Subtotal Structure Fire	601	592	535
Still Fire Assignments	604	595	619
Brush Fire	109	76	94
Subtotal Non-Structure Fire	713	1,161	713
Total Fire Incidents	1,314	1,263	1,248
All EMS Response	12,260	11,729	13,505
Grade 1 Responses	1,358	635	343
Hazardous Materials	19	5	12
Airport Alert	32	34	26
SORT Incidents	8	29	10
Service Incidents	3,249	3,587	3,343
Rescue - Non-EMS	280	285	283
Cancelled In-Route	2,854	2,969	3,322
TOTAL INCIDENTS	21,544	21,536	22,092
Water Flow***			
Hydrants	700	4,053	8,712
Training Water	922,775	1,786,750	2,613,600
Incident Water	407,815	572,070	461,549
TOTAL WATER USAGE	1,630,890	2,471,773	3,699,461
Fire Prevention			
Type of Occupancy			
Group A	743	781	855
Group B	2,701	2,615	2,613
Group E	217	258	216
Group F	51	75	75
Group H	146	127	147
Group I	117	159	87
Group M	572	527	543
Group R	13,418	9,608	8,046
Group S	284	289	405
Group U	55	1,380	30
Total Inspection Stops	18,304	15,819	13,017

Summary of Activity by Year for Scottsdale, Arizona
Fire Prevention, Suppression and Other Activities
1999 - 2001

Activity	1999	2000	2001*
Type of Inspection	0	0	0
Alarm	3,270	1,145	1,584
Construction	3,598	2,871	2,988
Hood	93	57	102
Lot	46	31	45
Miscellaneous	452	334	486
Night	107	193	249
Spec. Hazard	272	168	189
Res. Sprinkler	26,398	6,682	5,865
Comm. Sprinkler	2,145	4,869	3,444
General	2,829	2,383	2,448
Safety Survey	3,694	3,915	5,124
Total Inspections	27,604	22,648	22,524
C/O's Issued			
New Building	1,060	517	333
Tenant Improvements	613	197	159
Temp C/O	171	348	567
Total Cert. Of Occupancy	1,844	1,062	1,059
Miscellaneous Activities			
Hydrant	4,121	3,965	8,655
Investigation	39	44	45
Inv/Interview	38	41	24
Inv/Reports	21	27	30
Runs	85	47	33
AS Built Peps	210	169	69
Citations Issued	23	10	18
Plans Reviewed	409	399	681
Permits Issued	395	609	762
Blood Pressures	1,213	1,049	1,485
Total Miscellaneous	6,554	6,360	11,802
Plan Review			
Alarm Plans	709	852	1,101
Building Plans	1,378	1,867	1,908
D.R. Plans	1,305	1,357	1,422
Miscellaneous Plans	1,561	1,582	1,509
Res. Sprinkler Plans	1,984	2,125	2,862
Comm. Sprinkler Plans	1,503	1,287	1,092
Site Plans	1,861	3,032	3,885
Walk-in Plans	721	1,374	1,122
Consultations'	16,430	18,396	16,827
Total Plan Review	27,452	31,872	31,728
TOTAL FIRE PREVENTION ACTIVITIES	81,758	77,761	80,130

Summary of Activity by Year for Scottsdale, Arizona
Fire Prevention, Suppression and Other Activities
1999 - 2001

Activity	1999	2000	2001*
Public Education Events**	0	0	
Career/Fire Service	24	6	
Community Fire/EMS	58	22	
CPR Certified	231	180	
First Aid	9	3	
School Talks	79	71	
EDITH	15	0	
Juvenile Fire Setter	52	6	
Station Tours	174	112	
General Subtotals	642	158	
Public Education Display	6	0	
Standby Fire/EMS	161	53	
Media Events	5	3	
Birthday Parties	20	6	
Special Events Subtotals	192	70	
Residential Mailers	16,145	12,376	
Clown Events	14	4	
Block Watch	7	4	
Car Seats Installs	10	13	
Total Miscellaneous	16,166	12,384	
TOTAL PUBLIC EDUCATION EVENTS	17,000	12,612	

Rural Metro Contract with Union

Schedule	<ul style="list-style-type: none"> • Currently, the Company operates "A" and "B" shift schedules with 48 "Kelly Days" per calendar year and an average workweek of 62 hours. • Effective January 1, 2002, "Kelly Days" increase to 52 days per year and the workweek decreases to 60 hours. • For 40 hour per week employees, the workweek consists of 9 days per 2 weeks, from 0700 to 1700 daily, with every other Monday or Friday off.
Compensation	<ul style="list-style-type: none"> • As of July 2001, the company instituted a 1.5% wage increase across the board, except for Fire Fighters assigned as paramedics and range maximum increase of 1.5%. Another salary/pay grade is scheduled for January 2002. • Fire Fighters assigned as paramedics received a grade promotion from FM 1s to FM 2s. However, FM 3s received the 1.5% pay increase. • Beginning July 1, 2002, advancement to the next pay grade will occur on the anniversary date of company members. • Specialty team members receive additional monthly payments, consisting of \$250 for the first team, and \$100 per additional team, with a maximum payment of \$450 per person. • Report pay consists of an additional hour of pay when the Company calls a staff member to work for an unscheduled shift. • When on-call, Level I staff receives SORT/SWAT Team standby compensated by assignment pay, Level II receives 1 hour of pay or \$25, and Level III receives 1 hour of pay per 4 hours on call. • The Company provides the Union a bank of 3,468 hours or \$35,000, for staff. • Employees receive \$400 annually for uniform purchases.

Rural Metro Contract with Union

<p>Assignments</p>	<ul style="list-style-type: none"> • The contract allows for a daily total of 30% of bargaining unit positions to be filled by non-bargaining unit employees. • Persons working "out of title/class" receive an additional 9% hourly wage adjustment for time worked. • Probationary periods range from 6 months to 1 year, depending on the position. A new hire remains on probation for 1 year, and may only grieve a disciplinary action after a 30 day period. Length of probation varies for transferred or promoted employees, however, they are able to return to the previous or an equal position within 30 days of the move.
<p>Leave Time</p>	<ul style="list-style-type: none"> • As of January 1, 2001, sick leave is allotted in the following manner: shift employees (40 hour schedule employees) working for 0-6 months receive 72 hours (40 hours), 6 months to 1 year receive 120 hours (80 hours), and over 1 year of service receives 192 hours (120 hours). • Employees can accumulate a total of 972 hours, however the company exchange sick time at 2 to 1 with either pay or vacation time. Effective January 1, 2002, employees must accumulate a minimum of 780 hours to be eligible for the buy back program. • Vacation time is awarded in the following manner: shift employees (and 40 hour schedule) who have worked with the company 6 months to 1 year receives 2 days (5 days), 1 to 5 years are allotted 5 days (9 days), 5 to 10 years receives 7 days (14 days), 15 to 20 years received 11 days (23 days), and over 20 years receives 13 days (27 days). • The company recognizes 6 holiday days per calendar, paying employees who work for an additional 8 hours of straight time. • Bereavement leave is given to an employee whose immediate family member has passed away. 5 days are allowed per situation. • Salary or wages are covered up to 30 days for Jury Duty. • Military leave is granted without pay. • Employees on Industrial Leave receive wages for up to 1 year and maintain seniority. • Personal leave is allowed for up to 3 months, providing the employees has successfully completed his/her probationary period.

Rural Metro Contract with Union	
Benefits	<ul style="list-style-type: none"> • Health, dental, vision, long-term disability, and group-term life insurance, as well as an employee assistance program are available to staff through the Company. • Company members receive \$90 per year worked exceeding 6 years with a maximum payment of \$2,160 and \$4,320 for 30 years of service. • Tuition reimbursement up to \$2000 annually is available for employees. Reimbursement for an A is 100%, B is 90% and C is 75%.

Sick Time

	Shift Schedule	40 hour Schedule
0-6 months	72 hours	40 hours
6 months to 1 year	120 hours	80 hours
Over 1 year	192 hours	120 hours

Vacation Time

	Shift Schedule	40 hour Schedule
6 months to 1 year	2 days	5 days
1 to 5 years	5 days	9 days
5 to 10 years	7 days	14 days
10 to 15 years	9 days	18 days
15 to 20 years	11 days	23 days
20 years or more	13 days	27 days

ATTACHMENT B
RESULTS OF THE CITIZEN SURVEY

ATTACHMENT B

RESULTS OF THE CITIZEN SURVEY
Scottsdale, Arizona

1. INTRODUCTION

MAXIMUS distributed 500 surveys to a sample of those who had received services within the past six months. This survey was intended to solicit feedback from the community to understand the perception of the services provided by Rural / Metro. Even though this project is focused on the delivery of fire services (under the fire service contract between the City and Rural / Metro) the respondents were asked about both fire and EMS services they received (since the EMS makes up such a large percentage of the service requests).

2. RESPONSE RATE AND RESPONDENT CHARACTERISTICS

This section provides a brief summary of the response rate and a description of those persons who responded to the survey.

(1) The Response Rate to the Survey Was Relatively High Considering the Unsolicited Nature of the Survey.

The project team distributed a total of 500 surveys to those who had been service recipients within the past six months. The address data was obtained from Rural / Metro's records and included only name and address information. As a precaution, the project team also requested that no person under the age of 18 be included in the database. The points, below, provide a summary of the response rate:

- Rural / Metro provided MAXIMUS with several thousand names and related addresses. The project team then randomly sampled these data until a group of 500 were selected.

- Surveys were then mailed to the service recipients with an accompanying business reply envelope.
- Of these, 73 were returned to the project team's office by the Postal Service as addressee unknown (or for other similar reasons).
- Of those that were successfully delivered, MAXIMUS received a total of 67 completed responses.
- Discounting the 73 that could not be delivered, the total response rate was 15.7%

This response rate is relatively good considering the fact that this was an unsolicited survey and that many respondents did not know (nor have any personal vested interest in) the survey or the study itself. A response rate of more than 10% to such a survey is quite positive.

(2) **The Majority of Respondents Had Contact with EMS for Medical Calls.**

The table below summarizes survey responses by type of call. More than 76% of survey respondents requested service for a medical call. The next largest group only accounted for 10% or respondents requesting service for a car accident. Fires by each type (structure, car, and 'other') accounted for 4% each — 12% total. Statistics from the overall group should be interpreted with this in mind.

Type of Service Requested

Rating	Response	Percentage
Structure fire	3	4%
Car fire	3	4%
Grass fire	--	--
Other fire	3	4%
Medical call	52	76%
Car accident	7	10%
Other assist	--	--
Total	68	100%

Additionally, 94% of respondents initiated a request for service by making a 911 telephone call (it might be assumed that the others were also initiated in this

manner but that others initiated the call for them). The following section provides specific analysis of customer responses.

3. **RESPONSES TO THE SURVEY WERE POSITIVE.**

Respondents were asked a series of questions to evaluate their perceptions and direct experiences with fire and emergency medical services in the City of Scottsdale from Rural/Metro. The responses to these questions were quite positive — with greater than 90% giving the most positive rating for each of the six questions. Analysis of these questions is found below.

(1) **Almost All Respondents (66 of 67) Rated Their Overall Satisfaction with Rural/Metro's Handling of Their Service Request as 'Very Satisfied'.**

The high degree of satisfaction reported by respondents is commendable. The one respondent that did not indicate 'very satisfied' chose the next positive rating of 'generally satisfied.'

Respondents were asked to rate their overall satisfaction from a range of 'very satisfied' to 'very dissatisfied' (there was also a 'neither' rating). One survey question asked for a rating of courtesy exhibited by the responding unit — with a rating of 'very courteous' to 'very discourteous.' Additionally, one question asked for a 'yes' or 'no' response.

A summary of the results from the service delivery questions is provided in the following paragraphs:

- The majority (91%) of respondents ranked their satisfaction with the dispatcher's handling of their call as 'very satisfied.' An additional 8% indicated the second positive rating of 'generally satisfied.'
- All respondents gave a positive rating — very satisfied or generally satisfied — regarding the amount of time for a unit to arrive (see a more detailed summary of a related question in the following sub-section).

- Almost all respondents (66 of 67) rated the degree of courtesy exhibited by the responding unit(s) as 'very courteous.' One respondent indicated the second positive rating of 'generally courteous.'
- All respondents indicated that firefighter(s) exhibited professionalism during their time on the scene.
- From the responses, 97% were 'very satisfied' with the actions taken by the firefighter(s) to resolve the situation that prompted the service call.

As the above analysis indicates, the perceptions and experiences of the responding Rural/Metro customers regarding service delivery are extremely positive.

(2) **The Average Reported Wait Time for Service Was Perceived to Be Eight Minutes.**

The survey asked customers to give an estimate of the amount of time from requesting service to a unit arriving. The average and median were approximately eight minutes. The table below summarizes responses into three categories of time — none of responses were greater than 15 minutes.

Summary of Indicated Response Times

Indicated Time	Response	Percentage
1 to 5 Minutes	23	43%
6 to 10 Minutes	24	45%
11 to 15 Minutes	6	11%
Total	53	100%

It was not possible, given the nature of the random sample, to determine whether these perceptions matched the actual service provided by Rural / Metro (since we had no way of linking the call data to the respondent). The following subsection summarizes the written comments made by respondents.

(3) **Most Written Comments Provided by Respondents Were Positive and Praised the Quality of Service Received.**

Survey respondents were asked to make any additional comments that they would like to bring to the attention of the study team. Forty (or 59%) respondents provided some written response. Specific responses were not included in this

document to protect the confidentiality of the respondent. Comments have been summarized into the categories found below:

- **Praise for Services** — Twenty-nine respondents praised the fire and EMS staff for the quality of services received. Many of these responses were in the form of personal testimonials describing their experiences and how the quality of service affected them in a positive manner. These comments noted the courteous actions of responding personnel, the explanation of treatment provided, and the calming assistance provided to both the injured party and their families. Several respondents also praised the Rural / Metro staff for spending time with them in the emergency room until a doctor arrived, or visiting them at a later time to "see how they were doing."
- **Quick Arrival Time** — The quick arrival time of Rural / Metro units was noted by ten respondents. Several respondents noted that the quick response time was critical to the success of their treatment.
- **Long Arrival Time** — Two respondents noted that there was a long time between their requests for service and arrival of a unit.
- **Price** — Comments regarding the perceived high cost of service provided by Rural/Metro was made by two respondents. It was unclear whether these persons were responding to the cost of EMS care or to some subscription service arrangement they have with Rural / Metro.

These written responses, like the reactions to the formal questions of the survey, were quite positive. The project team views these written responses as verifying the results of the questions posed to each respondent in the survey.